

**URS**



London Borough of Waltham Forest Local  
Development Framework  
**Development Management Policies  
Preferred Options - Habitat Regulations  
Assessment Screening**

Report  
January 2011



## Revision Schedule

### **Habitat Regulations Assessment Screening** January 2011

Rev	Date	Details	Prepared by	Reviewed by	Approved by
01	January 2011	Final Issue	<b>Dr Graeme Down</b> Ecologist	<b>Dr James Riley</b> Principal Ecologist	<b>Dr James Riley</b> Principal Ecologist

This document has been prepared in accordance with the scope of Scott Wilson's appointment with its client and is subject to the terms of that appointment. It is addressed to and for the sole and confidential use and reliance of Scott Wilson's client. Scott Wilson accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided. No person other than the client may copy (in whole or in part) use or rely on the contents of this document, without the prior written permission of the Company Secretary of Scott Wilson Ltd. Any advice, opinions, or recommendations within this document should be read and relied upon only in the context of the document as a whole. The contents of this document do not provide legal or tax advice or opinion.

© Scott Wilson Ltd 2010

**URS/Scott Wilson**  
Scott House  
Alencon Link  
Basingstoke  
Hampshire  
RG21 7PP

Tel 01256 310200  
Fax 01256 310201

[www.urs-scottwilson.com](http://www.urs-scottwilson.com)

Table of Contents

**1 Introduction ..... 4**

1.1 Background to the Project ..... 4

1.2 Current Legislation ..... 4

1.3 Scope of the Project ..... 5

1.4 This report ..... 6

**2 Methodology ..... 7**

2.1 Introduction ..... 7

2.2 HRA Task 1 - Likely Significant Effects (LSE) ..... 7

2.3 Appropriate Assessment and Mitigation ..... 8

2.4 Confirming other plans and projects that may act in combination ..... 9

**3 Pathways of impact ..... 13**

3.1 Introduction ..... 13

3.2 Urbanisation ..... 13

3.3 Recreational pressure ..... 14

3.4 Atmospheric pollution ..... 19

3.5 Water abstraction ..... 24

3.6 Water Quality ..... 25

**4 Screening ..... 26**

**5 Overall Conclusions ..... 57**

**Appendix 1: European Designated Sites ..... 58**

Introduction ..... 58

Features of European Interest ..... 58

Historic Trends and Current Conditions ..... 58

Key environmental conditions ..... 59

Introduction ..... 59

Features of European interest ..... 60

Historic Trends and Current Conditions ..... 60

Key environmental conditions ..... 61

**Appendix 2: ‘Tiering’ in Habitat Regulations Assessment ..... 62**

# 1 Introduction

## 1.1 Background to the Project

- 1.1.1 URS/Scott Wilson was appointed by the London Borough of Waltham Forest to assist the Council in undertaking a Habitat Regulations Assessment of the Preferred Options Development Management Policies DPD (DMP). The objective of the assessment was to identify any aspects of the DMP that would cause an adverse effect on the integrity of Natura 2000 sites, otherwise known as European sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and, as a matter of Government policy, Ramsar sites), either in isolation or in combination with other plans and projects, and to advise on appropriate policy mechanisms for delivering mitigation where such effects were identified.
- 1.1.2 The DMP will translate the strategic policies in the Core Strategy into more detail to be used in assessing planning applications within Waltham Forest's Local Development Framework (LDF) that will supersede the current Unitary Development Plan (2006).
- 1.1.3 The core LDF documents will ultimately include:
- Core Strategy;
  - Development Management Policies;
  - Proposals Map/Site Specific Allocations;
  - North London Joint Waste Plan;
  - Area Action Plans (Wood Street, Blackhorse Lane, Walthamstow Town Centre and Northern Olympic Fringe) ; and
  - Supplementary Planning Documents (SPDs) – e.g. Urban Design.
- 1.1.4 The Council has produced the Publication stage of the Core Strategy, which has been the subject of HRA, and both the CS and HRA will be referenced within the HRA of the DMP Preferred Options. The DMP is scheduled for Publication stage consultation in late 2011, with adoption in August 2012.

## 1.2 Current Legislation

- 1.2.1 The need for Appropriate Assessment is set out within Article 6 of the EC Habitats Directive 1992, and interpreted into British law by the Conservation of Habitats and Species Regulations 2010. The ultimate aim of the Directive is to “*maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest*” (Habitats Directive, Article 2(2)). This aim relates to habitats and species, not the European sites themselves, although the sites have a significant role in delivering favourable conservation status.
- 1.2.2 The Habitats Directive applies the precautionary principle to European sites. Plans and projects can only be permitted having ascertained that there will be no adverse effect on the integrity of the site(s) in question. Plans and projects may still be permitted if there are no alternatives to them and there are Imperative Reasons of Overriding Public Interest (IROPI) as to why they

should go ahead. In such cases, compensation would be necessary to ensure the overall integrity of the site network.

- 1.2.3 In order to ascertain whether or not site integrity will be affected, an Appropriate Assessment should be undertaken of the plan or project in question:

**Box 1. The legislative basis for Appropriate Assessment**

**Habitats Directive 1992**

Article 6 (3) states that:

*“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site’s conservation objectives.”*

**Conservation of Habitats and Species Regulations 2010**

The Regulations state that:

*“A competent authority, before deciding to ... give any consent for a plan or project which is likely to have a significant effect on a European site ... shall make an appropriate assessment of the implications for the site in view of that sites conservation objectives... The authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site”.*

- 1.2.4 Over the years the phrase ‘Habitats Regulations Assessment’ (HRA) has come into wide currency to describe the overall process set out in the Conservation of Habitats and Species Regulations from screening through to IROPI. This has arisen in order to distinguish the process from the individual stage described in the law as an ‘appropriate assessment’. Throughout this report we use the term Habitat Regulations Assessment for the overall process and restrict the use of Appropriate Assessment to the specific stage of that name.

## 1.3 Scope of the Project

- 1.3.1 There is no pre-defined guidance that dictates the physical scope of an HRA of Development Management Policies. Therefore, in considering the physical scope of the assessment, we were guided primarily by the identified impact pathways rather than by arbitrary ‘zones’. Current guidance suggests that the following European sites be included in the scope of assessment:

- All sites within the Waltham Forest Borough boundary; and
- Other sites shown to be linked to development within the Borough boundary through a known ‘pathway’ (discussed below)

- 1.3.2 Briefly defined, pathways are routes by which a change in activity within the DMP area can lead to an effect upon a European site. In terms of the second category of European site listed above, CLG guidance states that the HRA should be *‘proportionate to the geographical scope of the*

[plan policy]' and that '*an AA need not be done in any more detail, or using more resources, than is useful for its purpose*' (CLG, 2006, p.6).

- 1.3.3 There are three European sites that lie partly within the Borough of Waltham Forest – Epping Forest SAC, the Lee Valley SPA and the Lee Valley Ramsar site. As the Core Strategy notes, all 224,300 residents (as of 2009) within the Borough are currently living within 1.2km of either Epping Forest or the Lee (or Lea) Valley Regional Park (within which the components of the Lee Valley SPA and Ramsar sites are geographically contained). Outside of the Borough, Wormley-Hoddesdonpark Woods SAC was considered within the HRA of the CS, primarily because it lies within the distance over which visitors from Waltham Forest are likely to make recreational day visits (based on the latest results of the England Day Visits Survey). However, no pathways of impact were found to be applicable, and therefore this SAC will not be considered with regard to the DMP. Figure 1 shows the location of the European sites in relation to Waltham Forest Borough. The background information and key characteristics of these sites are summarised in Appendix 1.

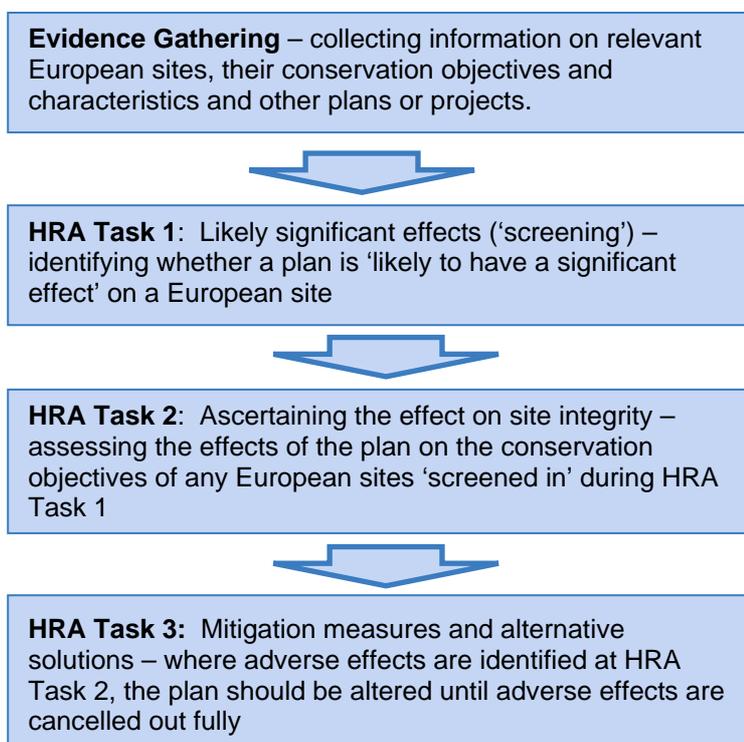
## 1.4 This report

- 1.4.1 Chapter 2 of this report explains the process by which the HRA has been carried out. Chapter 3 explores the relevant pathways of impact. Chapter 4 considers the Screening stage of the HRA process. The key findings are summarised in Chapter 5: Overall Conclusions.

## 2 Methodology

### 2.1 Introduction

- 2.1.1 The HRA has been carried out in the continuing absence of formal central Government guidance. CLG released a consultation paper on AA of Plans in 2006<sup>1</sup>. As yet, no further formal guidance has emerged. However, Natural England has produced its own internal guidance as has the RSPB. Both of these have been referred to in producing this HRA.
- 2.1.2 Figure 2 below outlines the stages of HRA according to current draft CLG guidance. The stages are essentially iterative, being revisited as necessary in response to more detailed information, recommendations and any relevant changes to the plan until no significant adverse effects remain.
- 



**Figure 2 - Four-Stage Approach to Habitat Regulations Assessment**

Source: CLG, 2006

---

### 2.2 HRA Task 1 - Likely Significant Effects (LSE)

- 2.2.1 The first stage of any Habitat Regulations Assessment is a Likely Significant Effect (LSE) test - essentially a risk assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is:

---

<sup>1</sup> CLG (2006) Planning for the Protection of European Sites, Consultation Paper

2.2.2 *"Is the Plan, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon European sites?"*

2.2.3 The objective is to 'screen out' those plans and projects that can, without any detailed appraisal, be said to be unlikely to result in significant adverse effects upon European sites, usually because there is no mechanism for an adverse interaction with European sites.

2.2.4 This stage of HRA forms the basis of this current report.

## 2.3 Appropriate Assessment and Mitigation

2.3.1 With regard to those European sites where it is considered not possible to 'screen out' the DPD without detailed appraisal, it is necessary to progress to the later 'Appropriate Assessment' stage to explore the adverse effects and devise mitigation.

2.3.2 The steps involved are detailed in Box 2.

### Box 2. The steps involved in Appropriate Assessment

1. Explore the reasons for the European designation of these sites.
2. Explore the environmental conditions required to maintain the integrity of the selected sites and become familiar with the current trends in these environmental processes.
3. Gain a full understanding of the plan and its policies and consider each policy within the context of the environmental processes – would the policy lead to an impact on any identified process?
4. Decide if the identified impact will lead to an adverse effect on integrity.
5. Identify other plans and projects that might affect these sites in combination with the Plan and decide whether there are any adverse effects that might not result from the Plan in isolation but will do so "in combination".
6. Develop policy mechanisms to enable the delivery of measures to avoid the effect entirely, or if not possible, to mitigate the impact sufficiently that the effect on the European site is rendered effectively inconsequential.

2.3.3 The level of detail concerning developments that will be permitted under land use plans will never be sufficient to make a detailed quantification of adverse effects. Therefore, we would conduct a precautionary approach (in the absence of more precise data) assuming as the default position that if an adverse effect cannot be confidently ruled out, avoidance or mitigation measures must be provided. This is in line with CLG guidance that the level of detail of the assessment, whilst meeting the relevant requirements of the Habitats Regulations, should be 'appropriate' to the level of plan or project that it addresses (see Appendix 2 for a summary of this 'tiering' of assessment).

2.3.4 When discussing 'mitigation' for a DPD one is concerned primarily with the policy framework to enable the delivery of such mitigation rather than the details of the mitigation measures themselves since the DMP is a high-level policy document. It is important to note that there is a

clear mitigation hierarchy with regard to Appropriate Assessment – if possible the plan or project should seek to avoid the impact and if that can't be achieved should seek to mitigate it to such an extent that an adverse effect on integrity of the European site will not result. Only in exceptional circumstances (following demonstration of 'no alternatives' and 'imperative reasons of over-riding public interest') will compensation be acceptable.

## 2.4 Confirming other plans and projects that may act in combination

2.4.1 It is a requirement of the Regulations that the impacts and effects of any land use plan being assessed are not considered in isolation but in combination with other plans and projects that may also be affecting the European site(s) in question.

2.4.2 It is neither practical nor necessary to assess the 'in combination' effects of the DMP within the context of all other plans and projects within London. For the purposes of this assessment, we have determined that, due to the nature of the identified impacts, the key other plans and projects relate to the additional housing, transportation and commercial/industrial allocations proposed for other neighbouring authorities over the lifetime of the DMP. The East of England Plan (March 2010), South East Plan (May 2009) and the London Plan (consultation draft replacement plan October 2009) provide a good introduction to proposals for areas surrounding Waltham Forest borough. Although both the South East Plan and the East of England Plan have since been abandoned, they still provide the best summary of the currently anticipated levels of housing within authorities within the region that are up to 20km<sup>2</sup> from European sites that could potentially be impacted by development within Waltham Forest.

2.4.3 In considering the potential for regional housing development on Epping Forest SAC and Lee Valley SPA and Ramsar, the primary consideration is the impact of visitor numbers – i.e. recreational pressure – to which both sites are vulnerable. Other pathways of impact described in more detail in Chapter 3 include reduced air quality and pressure on water resources and quality. Whilst these are also strongly related to housing provision, the actual geographic impact must also be considered within the context of relevant infrastructure (e.g. road transport corridors and water supply catchments).

**Table 1. Housing levels to be delivered in authorities within 20km of relevant European sites under the East of England Plan (now revoked) and the London Plan (consultation draft replacement plan), other than Waltham Forest itself**

Local Authority	Annual housing average	Total housing from 2006 to 2026 (South East Plan) Total housing from 2011 to 2031 (East of England Plan) Total housing to 2011 to 2021 (London Plan)
Barking and Dagenham	1,510	15,100
Barnet	2,255	22,550
Bexley	335	3,350
Brent	1,065	10,650
Brentwood	170	3,400
Bromley	565	5,650
Broxbourne	260	5,100
Camden	665	6,650

<sup>2</sup> This distance covers the typical day visit made to sites (other than coastal) for recreational purposes

Local Authority	Annual housing average	Total housing from 2006 to 2026 (South East Plan) Total housing from 2011 to 2031 (East of England Plan) Total housing to 2011 to 2021 (London Plan)
Chelmsford	830	16,600
City of London	110	1,100
Croydon	1,330	13,300
Dartford	867	17,340
Ealing	890	8,900
East Hertfordshire	550	11,000
Enfield	560	5,600
Epping Forest	160	3,200
Greenwich	2,595	25,950
Hackney	1,160	11,600
Hammersmith and Fulham	615	6,150
Haringey	820	8,200
Harlow	800	16,000
Harrow	350	3,500
Havering	1,235	12,350
Hertsmere	250	5,000
Hounslow	475	4,750
Islington	1,170	11,700
Kensington and Chelsea	585	5,850
Lambeth	1,255	12,550
Lewisham	1,105	11,050
Merton	320	3,200
Newham	2,500	25,000
North Hertfordshire	790	15,800
Redbridge	760	7,600
Richmond-upon-Thames	245	2,450
St. Albans	350	7,000
Southwark	2,005	20,050
Stevenage	320	6,400
Thurrock	930	18,500
Tower Hamlets	2,885	28,850
Uttlesford	400	8,000
Wandsworth	1,280	12,800
Welwyn-Hatfield	290	5,800
Westminster	770	7,700

2.4.4 There are other plans and projects beyond the current emerging LDF documents that are relevant to the 'in combination' assessment, and the following have all been taken into account in this assessment:

- Redbridge Borough Council adopted Core Strategy (2008)
- Newham Borough Council Core Strategy Issues and Options (2008)
- Hackney Borough Council Core Strategy Proposed Submission Document (2009)
- Haringey Borough Council Core Strategy Proposed Submission Document (2009)
- Enfield Borough Council Core Strategy Proposed Submission Document (2009)

- North London Waste Plan Preferred Options (2009)
- Crossrail and Crossrail 2
- The London Plan (adopted 2004 and consultation draft replacement plan October 2009)
- London 2012 Olympic Park
- Thames Gateway London Partnership
- London-Stansted-Cambridge-Peterborough Growth Area
- Enfield Council Central Leaside Area Action Plan Issues and Options (2008)
- Westfield Group. Stratford City Masterplan (2009)
- Upper/Lower Lea Valley Opportunity Area Planning Frameworks
- Epping Forest Management Plan 2004-2010
- Lee Valley Regional Park Authority Site management Plan 2006-2011
- City of London/Essex County Council. Epping Forest Transport Strategy proposals 2009-2016
- Waltham Forest Strategic Infrastructure Plan (2009)
- Waltham Forest Housing Land Availability Assessment (2008)
- Walthamstow Reservoirs Feasibility Study (2010)
- Waltham Forest Open Space Strategy (2010)
- Environment Agency. Water for People and the Environment: Water Resources Strategy Regional Action Plan for Thames Region (2009)
- Environment Agency London Catchment Abstraction Management Plan (2006)
- Environment Agency River Basin Management Plan: Thames River Basin District (2009)
- Thames Water's Revised Draft Water Resource Management Plan (2009)
- Veolia Water Central's Final Water Resource Management Plan (2010)
- Impact of East of England Housing and Economic Growth Scenarios on Regional Water Supplies: Draft Environment Agency Response to EERA Consultation (2009)
- Countryside Agency's England Day Visits information (2005)
- Epping Forest Visitor Survey Analysis (2006)
- Locational data available from the Air Pollution Information System (APIS) database
- Hyder Consulting. Rye Meads Water Cycle Strategy (2009).
- Mayor of London. Connecting with London's Nature – The Mayor's Biodiversity Strategy (2002).

2.4.5 When undertaking this part of the assessment it is essential to bear in mind the principal intention behind the legislation i.e. to ensure that those projects or plans which in themselves have minor impacts are not simply dismissed on that basis, but are evaluated for any cumulative contribution they may make to an overall significant effect. In practice, in combination assessment is therefore

of greatest relevance when the plan would otherwise be screened out because its individual contribution is inconsequential.

## 3 Pathways of impact

### 3.1 Introduction

3.1.1 In carrying out an HRA it is important to determine the various ways in which land use plans can impact on European sites by following the pathways along which development can be connected with European sites, in some cases many kilometres distant. Briefly defined, pathways are routes by which a change in activity associated with a development can lead to an effect upon a European site.

### 3.2 Urbanisation

3.2.1 This impact is closely related to recreational pressure, in that they both result from increased populations within close proximity to sensitive sites. Urbanisation is considered separately as the detail of the impacts is distinct from the trampling, disturbance and dog-fouling that results specifically from recreational activity. The list of urbanisation impacts can be extensive, but core impacts can be singled out:

- Increased fly-tipping - Rubbish tipping is unsightly but the principle adverse ecological effect of tipping is the introduction of invasive alien species with garden waste. Garden waste results in the introduction of invasive aliens precisely because it is the 'troublesome and over-exuberant' garden plants that are typically thrown out<sup>3</sup>. Alien species may also be introduced deliberately or may be bird-sown from local gardens.
- Cat predation - A survey performed in 1997 indicated that nine million British cats brought home 92 million prey items over a five-month period<sup>4</sup>. A large proportion of domestic cats are found in urban situations, and increasing urbanisation is likely to lead to increased cat predation.

3.2.2 The most detailed consideration of the link between relative proximity of development to European sites and damage to interest features has been carried out with regard to the Thames Basin Heaths SPA.

3.2.3 After extensive research, Natural England and its partners produced a 'Delivery Plan' which made recommendations for accommodating development while also protecting the interest features of the European site. This included the recommendation of implementing a series of zones within which varying constraints would be placed upon development. While the zones relating to recreational pressure expanded to 5km (as this was determined from visitor surveys to be the principal recreational catchment for this European site), that concerning other aspects of urbanisation (particularly predation of the chicks of ground-nesting birds by domestic cats) was determined at 400m from the SPA boundary. The delivery plan concluded that the adverse effects of any development located within 400m of the SPA boundary could not be mitigated since this was the range within cats could be expected to roam as a matter of routine and there was no realistic way of restricting their movements, and as such, no new housing should be located within this zone.

---

<sup>3</sup> Gilbert, O. & Bevan, D. 1997. The effect of urbanisation on ancient woodlands. *British Wildlife* 8: 213-218.

<sup>4</sup> Woods, M. et al. 2003. Predation of wildlife by domestic cats *Felis catus* in Great Britain. *Mammal Review* 33, 2 174-188

3.2.4 Given that both Epping Forest SAC and the Lee Valley SPA and Ramsar sites lie partly within Waltham Forest, they are theoretically vulnerable, from a geographic perspective, to the effects of urbanisation. It is also true that both are vulnerable ecologically – Epping Forest through direct habitat degradation and Lee Valley through similar effects on habitat that supports the species for which the SPA and Ramsar are designated. It is unlikely that the SPA and Ramsar designated species would be directly vulnerable to urbanisation impacts, as they are species that favour aquatic environments and are unlikely to suffer from significant cat predation.

3.2.5 Therefore it is necessary to perform an initial screen to determine whether the Waltham Forest DMP contains policy measures that could lead to significant adverse effects, either alone or ‘in combination’ with other plans and projects, through urbanisation, on these European sites.

### 3.3 Recreational pressure

3.3.1 Recreational use of a European site has the potential to:

- Cause disturbance to sensitive species, particularly ground-nesting birds and wintering wildfowl;
- Prevent appropriate management or exacerbate existing management difficulties;
- Cause damage through erosion and fragmentation; and
- Cause eutrophication as a result of dog fouling.

3.3.2 Different types of European sites are subject to different types of recreational pressures and have different vulnerabilities. Studies across a range of species have shown that the effects from recreation can be complex.

#### **Mechanical/abrasive damage and nutrient enrichment**

3.3.3 Most types of terrestrial European site can be affected by trampling, which in turn causes soil compaction and erosion. Walkers with dogs contribute to pressure on sites through nutrient enrichment via dog fouling and also have potential to cause greater disturbance to fauna as dogs are less likely to keep to marked footpaths. Motorcycle scrambling and off-road vehicle use can cause more serious erosion, as well as disturbance to sensitive species.

3.3.4 There have been several papers published that empirically demonstrate that damage to vegetation in woodlands and other habitats can be caused by vehicles, walkers, horses and cyclists:

- Wilson & Seney (1994)<sup>5</sup> examined the degree of track erosion caused by hikers, motorcycles, horses and cyclists from 108 plots along tracks in the Gallatin National Forest, Montana. Although the results proved difficult to interpret, It was concluded that horses and hikers disturbed more sediment on wet tracks, and therefore caused more erosion, than motorcycles and bicycles.

---

<sup>5</sup> Wilson, J.P. & J.P. Seney. 1994. Erosional impact of hikers, horses, motorcycles and off road bicycles on mountain trails in Montana. *Mountain Research and Development* 14:77-88

- Cole et al (1995a, b)<sup>6</sup> conducted experimental off-track trampling in 18 closed forest, dwarf scrub and meadow & grassland communities (each tramped between 0 – 500 times) over five mountain regions in the US. Vegetation cover was assessed two weeks and one year after trampling, and an inverse relationship with trampling intensity was discovered, although this relationship was weaker after one year than two weeks indicating some recovery of the vegetation. Differences in plant morphological characteristics were found to explain more variation in response between different vegetation types than soil and topographic factors. Low-growing, mat-forming grasses regained their cover best after two weeks and were considered most resistant to trampling, while tall forbs (non-woody vascular plants other than grasses, sedges, rushes and ferns) were considered least resistant. Cover of hemicryptophytes and geophytes (plants with buds below the soil surface) was heavily reduced after two weeks, but had recovered well after one year and as such these were considered most resilient to trampling. Chamaephytes (plants with buds above the soil surface) were least resilient to trampling. It was concluded that these would be the least tolerant of a regular cycle of disturbance.
  - Cole (1995c)<sup>7</sup> conducted a follow-up study (in 4 vegetation types) in which shoe type (trainers or walking boots) and trampler weight were varied. Although immediate damage was greater with walking boots, there was no significant difference after one year. Heavier trampers caused a greater reduction in vegetation height than lighter trampers, but there was no difference in effect on cover.
  - Cole & Spildie (1998)<sup>8</sup> experimentally compared the effects of off-track trampling by hiker and horse (at two intensities – 25 and 150 passes) in two woodland vegetation types (one with an erect forb understorey and one with a low shrub understorey). Horse traffic was found to cause the largest reduction in vegetation cover. The forb-dominated vegetation suffered greatest disturbance, but recovered rapidly. Higher trampling intensities caused more disturbance.
- 3.3.5 The total volume of dog faeces deposited on sites can be surprisingly large. For example, at Burnham Beeches National Nature Reserve over one year, Barnard<sup>9</sup> estimated the total amounts of urine and faeces from dogs as 30,000 litres and 60 tonnes respectively. The specific impact on Epping Forest has not been quantified from local studies; however, the fact that habitats for which the SAC is designated appear to already be subject to excessive nitrogen deposition, suggests that any additional source of nutrient enrichment (including uncollected dog faeces) will make a cumulative contribution to overall enrichment. Any such contribution must then be considered within the context of other recreational sources of impact on sites.

## Disturbance

- 3.3.6 Concern regarding the effects of disturbance on birds stems from the fact that they are expending energy unnecessarily and the time they spend responding to disturbance is time that is not spent

---

<sup>6</sup> Cole, D.N. 1995a. Experimental trampling of vegetation. I. Relationship between trampling intensity and vegetation response. *Journal of Applied Ecology* 32: 203-214

Cole, D.N. 1995b. Experimental trampling of vegetation. II. Predictors of resistance and resilience. *Journal of Applied Ecology* 32: 215-224

<sup>7</sup> Cole, D.N. (1995c) Recreational trampling experiments: effects of trampler weight and shoe type. Research Note INT-RN-425. U.S. Forest Service, Intermountain Research Station, Utah.

<sup>8</sup> Cole, D.N., Spildie, D.R. (1998) Hiker, horse and llama trampling effects on native vegetation in Montana, USA. *Journal of Environmental Management* 53: 61-71

<sup>9</sup> Barnard, A. (2003) Getting the Facts - Dog Walking and Visitor Number Surveys at Burnham Beeches and their Implications for the Management Process. *Countryside Recreation*, 11, 16 - 19

feeding<sup>10</sup>. Disturbance therefore risks increasing energetic output while reducing energetic input, which can adversely affect the 'condition' and ultimately survival of the birds. In addition, displacement of birds from one feeding site to others can increase the pressure on the resources available within the remaining sites, as they have to sustain a greater number of birds<sup>11</sup>.

3.3.7 The potential for disturbance may be less in winter than in summer, in that there are often a smaller number of recreational users. In addition, the consequences of disturbance at a population level may be reduced because birds are not breeding. However, winter activity can still cause important disturbance, especially as birds are particularly vulnerable at this time of year due to food shortages, such that disturbance which results in abandonment of suitable feeding areas through disturbance can have severe consequences. Several empirical studies have, through correlative analysis, demonstrated that out-of-season (October-March) recreational activity can result in quantifiable disturbance:

- Underhill *et al*<sup>12</sup> counted waterfowl and all disturbance events on 54 water bodies within the South West London Water bodies Special Protection Area and clearly correlated disturbance with a decrease in bird numbers at weekends in smaller sites and with the movement of birds within larger sites from disturbed to less disturbed areas.
- Evans & Warrington<sup>13</sup> found that on Sundays total water bird numbers (including shoveler and gadwall) were 19% higher on Stocker's Lake LNR in Hertfordshire, and attributed this to displacement of birds resulting from greater recreational activity on surrounding water bodies at weekends relative to week days. However, recreational activity was not quantified in detail, nor were individual recreational activities evaluated separately.
- Tuite *et al*<sup>14</sup> used a large (379 site), long-term (10-year) dataset (September – March species counts) to correlate seasonal changes in wildfowl abundance with the presence of various recreational activities. They found that shoveler was one of the most sensitive species to disturbance. The greatest impact on winter wildfowl numbers was associated with sailing/windsurfing and rowing.
- Pease *et al*<sup>15</sup> investigated the responses of seven species of dabbling ducks to a range of potential causes of disturbance, ranging from pedestrians to vehicle movements. They determined that walking and biking created greater disturbance than vehicles and that gadwall were among the most sensitive of the species studied.
- A three year study of wetland birds at the Stour and Orwell SPA found that walkers, boats and dogs were the most regular source of disturbance. Despite this, the greatest

---

<sup>10</sup> Riddington, R. *et al.* 1996. The impact of disturbance on the behaviour and energy budgets of Brent geese. *Bird Study* 43:269-279

<sup>11</sup> Gill, J.A., Sutherland, W.J. & Norris, K. 1998. The consequences of human disturbance for estuarine birds. *RSPB Conservation Review* 12: 67-72

<sup>12</sup> Underhill, M.C. *et al.* 1993. Use of Waterbodies in South West London by Waterfowl. An Investigation of the Factors Affecting Distribution, Abundance and Community Structure. Report to Thames Water Utilities Ltd. and English Nature. Wetlands Advisory Service, Slimbridge

<sup>13</sup> Evans, D.M. & Warrington, S. 1997. The effects of recreational disturbance on wintering waterbirds on a mature gravel pitlake near London. *International Journal of Environmental Studies* 53: 167-182

<sup>14</sup> Tuite, C.H., Hanson, P.R. & Owen, M. 1984. Some ecological factors affecting winter wildfowl distribution on inland waters in England and Wales and the influence of water-based recreation. *Journal of Applied Ecology* 21: 41-62

<sup>15</sup> Pease, M.L., Rose, R.K. & Butler, M.J. 2005. Effects of human disturbances on the behavior of wintering ducks. *Wildlife Society Bulletin* 33 (1): 103-112.

responses came from relatively infrequent events, such as gun shots and aircraft noise. Birds seemed to habituate to frequent 'benign' events such as vehicles, sailing and horses, but there was evidence that apparent habituation to more disruptive events related to reduced bird numbers – i.e. birds were avoiding the most frequently disturbed areas. Disturbance was greatest at high tide and on the Orwell, but birds on the Stour showed greatest sensitivity (Ravenscroft, 2005).<sup>16</sup>

- 3.3.8 A number of studies have shown that birds are affected more by dogs and people with dogs than by people alone, with birds flushing more readily, more frequently, at greater distances and for longer<sup>10</sup>. In addition, dogs, rather than people, tend to be the cause of many management difficulties, notably by worrying grazing animals, and can cause eutrophication near paths. Nutrient-poor habitats such as heathland are particularly sensitive to the fertilising effect of inputs of phosphates, nitrogen and potassium from dog faeces<sup>17</sup>.
- 3.3.9 Underhill-Day<sup>10</sup> summarises the results of visitor studies that have collected data on the use of semi-natural habitat by dogs. In surveys where 100 observations or more were reported, the mean percentage of visitors who were accompanied by dogs was 54.0%.
- 3.3.10 However the outcomes of many of these studies need to be treated with care. For instance, the effect of disturbance is not necessarily correlated with the impact of disturbance, i.e. the most easily disturbed species are not necessarily those that will suffer the greatest impacts. It has been shown that, in some cases, the most easily disturbed birds simply move to other feeding sites, whilst others may remain (possibly due to an absence of alternative sites) and thus suffer greater impacts on their population<sup>18</sup>. A recent literature review undertaken for the RSPB<sup>19</sup> also urges caution when extrapolating the results of one disturbance study because responses differ between species and the response of one species may differ according to local environmental conditions. These facts have to be taken into account when attempting to predict the impacts of future recreational pressure on European sites.
- 3.3.11 Disturbing activities are on a continuum. The most disturbing activities are likely to be those that involve irregular, infrequent, unpredictable loud noise events, movement or vibration of long duration. Birds are least likely to be disturbed by activities that involve regular, frequent, predictable, quiet patterns of sound or movement or minimal vibration. The further any activity is from the birds, the less likely it is to result in disturbance.
- 3.3.12 The factors that influence a species response to a disturbance are numerous, but the three key factors are species sensitivity, proximity of disturbance sources and timing/duration of the potentially disturbing activity.

#### **Sensitivity of Species – Waterfowl and Waders**

- 3.3.13 The distance at which a species takes flight when approached by a disturbing stimulus is known as the 'tolerance distance' (also called the 'escape flight distance') and differs between species to the same stimulus and within a species to different stimuli. These are given in Table 2, which

---

<sup>16</sup> Ravenscroft, N. (2005) Pilot study into disturbance of waders and wildfowl on the Stour-Orwell SPA: analysis of 2004/05 data. Era report 44, Report to Suffolk Coast & Heaths Unit.

<sup>17</sup> Shaw, P.J.A., K. Lankey and S.A. Hollingham (1995) – Impacts of trampling and dog fouling on vegetation and soil conditions on Headley Heath. *The London Naturalist*, **74**, 77-82.

<sup>18</sup> Gill et al. (2001) - Why behavioural responses may not reflect the population consequences of human disturbance. *Biological Conservation*, **97**, 265-268

<sup>19</sup> Woodfield & Langston (2004) - Literature review on the impact on bird population of disturbance due to human access on foot. *RSPB research report* No. 9.

compiles 'tolerance distances' from across the literature. It is reasonable to assume from this that disturbance is unlikely to be experienced more than a few hundred metres from the birds in question. In addition, the regular mechanized noise that is associated with waste sites is likely to be less disturbing than the presence of visible human activity in areas in which the birds are not used to observing such activity.

**Table 2 - Tolerance distances of 21 water bird species to various forms of recreational disturbance, as described in the literature. All distances are in metres. Single figures are mean distances; when means are not published, ranges are given. Tydeman (1978)<sup>20</sup>, Keller (1989)<sup>21</sup>, Van der Meer (1985)<sup>22</sup>, Wolff et al (1982)<sup>23</sup>, Blankestijn et al (1986)<sup>24</sup>.**

Species	Type of disturbance		
	Rowing boats/kayak	Sailing boats	Walking
Little grebe		60 – 100 <sup>18</sup>	
Great crested grebe	50 – 100 <sup>19</sup>	20 – 400 <sup>18</sup>	
Mute swan		3 – 30 <sup>18</sup>	
Teal		0 – 400 <sup>18</sup>	
Mallard		10 – 100 <sup>18</sup>	
Shoveler		200 – 400 <sup>18</sup>	
Pochard		60 – 400 <sup>18</sup>	
Tufted duck		60 – 400 <sup>18</sup>	
Goldeneye		100 – 400 <sup>18</sup>	
Smew		0 – 400 <sup>18</sup>	
Moorhen		100 – 400 <sup>18</sup>	
Coot		5 – 50 <sup>18</sup>	
Curlew			211 <sup>20</sup> ; 339 <sup>21</sup> ; 213 <sup>22</sup>
Shelduck			148 <sup>20</sup> ; 250 <sup>21</sup>
Grey plover			124 <sup>20</sup>
Ringed plover			121 <sup>20</sup>
Bar-tailed godwit			107 <sup>20</sup> ; 219 <sup>21</sup>
Brent goose			105 <sup>20</sup>
Oystercatcher			85 <sup>20</sup> ; 136 <sup>21</sup> ; 82 <sup>22</sup>
Dunlin			71 <sup>20</sup> ; 163 <sup>19</sup>

<sup>20</sup> Tydeman, C.F. 1978. Gravel Pits as conservation areas for breeding bird communities. PhD thesis. Bedford College

<sup>21</sup> Keller, V. 1989. Variations in the response of Great Crested Grebes *Podiceps cristatus* to human disturbance - a sign of adaptation? *Biological Conservation* 49:31-45

<sup>22</sup> Van der Meer, J. 1985. De verstoring van vogels op de slikken van de Oosterschelde. Report 85.09 Deltadienst Milieu en Inrichting, Middelburg. 37 pp.

<sup>23</sup> Wolf, W.J., Reijnders, P.J.H. & Smit, C.J. 1982. The effects of recreation on the Wadden Sea ecosystem: many questions but few answers. In: G. Luck & H. Michaelis (Eds.), *Schriftenreihe M.E.L.F., Reihe A: Agnew. Wissensch* 275: 85-107

<sup>24</sup> Blankestijn, S. et al. 1986. *Seizoensverbreding in de recreatie en verstoring van Wulp en Scholkester op hoogwatervluchplaatsen op Terschelling*. Report Projectgroep Wadden, L.H. Wageningen. 261pp.

- 3.3.14 It should be emphasised that recreational use is not inevitably a problem. Many European sites are also nature reserves managed for conservation and public appreciation of nature. The Lee Valley Regional Park that encompasses the SPA and Ramsar sites is such an example. At these sites, access is encouraged and resources are available to ensure that recreational use is managed appropriately.
- 3.3.15 Where increased recreational use is predicted to cause adverse impacts on a site, avoidance and mitigation should be considered. Avoidance of recreational impacts at European sites involves location of new development away from such sites; Local Development Frameworks (and other strategic plans) provide the mechanism for this. Where avoidance is not possible, mitigation will usually involve a mix of access management, habitat management and provision of alternative recreational space.
- *Access management* – restricting access to some or all of a European site - is not usually within the remit of the Borough Council and restriction of access may contravene a range of Government policies on access to open space, and Government objectives for increasing exercise, improving health etc. However, active management of access may be possible, for example as practised on nature reserves.
  - *Habitat management* is not within the direct remit of the Council. However the Council can help to set a framework for improved habitat management by promoting cross-authority collaboration and S106 funding of habitat management. In the case of Waltham Forest, there may be opportunities for this since, according to Natural England, all areas of Site of Special Scientific Interest habitat underpinning Epping Forest SAC and Lee Valley SPA and Ramsar sites in Waltham Forest are not currently in favourable condition<sup>25</sup>.
  - *Provision of alternative recreational space* can help to attract recreational users away from sensitive European sites, and reduce additional pressure on them. For example, some species for which European sites have been designated are particularly sensitive to dogs, and many dog walkers may be happy to be diverted to other, less sensitive, sites. However the location and type of alternative space must be attractive for users to be effective. In the case of both Epping Forest and Lee Valley SPA and Ramsar sites, dog-walking, walking and cycling are likely to be the major site usages, and so alternative space needs to cater for this.
- 3.3.16 Both Epping Forest SAC and the Lee Valley SPA and Ramsar sites lie partly within Waltham Forest, and they are theoretically vulnerable, from a geographic perspective, to the effects of recreational pressure. They are sensitive ecologically – Epping Forest through habitat erosion, fragmentation and nutrient enrichment, and Lee Valley through disturbance to the species for which the SPA and Ramsar are designated.
- 3.3.17 Therefore it is necessary to perform an initial screen to determine whether the Waltham Forest DMP contains policy measures that could lead to a significant adverse effects, either alone or 'in combination' with other plans and projects, through recreational pressure, on these European sites.

## 3.4 Atmospheric pollution

- 3.4.1 The main pollutants of concern for European sites are oxides of nitrogen (NO<sub>x</sub>), ammonia (NH<sub>3</sub>) and sulphur dioxide (SO<sub>2</sub>). NO<sub>x</sub> can have a directly toxic effect upon vegetation. In addition,

---

<sup>25</sup> <http://www.natureonthemap.org.uk/>

greater NO<sub>x</sub> or ammonia concentrations within the atmosphere will lead to greater rates of nitrogen deposition to soils. An increase in the deposition of nitrogen from the atmosphere to soils is generally regarded to lead to an increase in soil fertility, which can have a serious deleterious effect on the quality of semi-natural, nitrogen-limited terrestrial habitats.

**Table 3. Main sources and effects of air pollutants on habitats and species**

Pollutant	Source	Effects on habitats and species
Acid deposition	SO <sub>2</sub> , NO <sub>x</sub> and ammonia all contribute to acid deposition. Although future trends in S emissions and subsequent deposition to terrestrial and aquatic ecosystems will continue to decline, it is likely that increased N emissions may cancel out any gains produced by reduced S levels.	Can affect habitats and species through both wet (acid rain) and dry deposition. Some sites will be more at risk than others depending on soil type, bed rock geology, weathering rate and buffering capacity.
Ammonia (NH <sub>3</sub> )	Ammonia is released following decomposition and volatilisation of animal wastes. It is a naturally occurring trace gas, but levels have increased considerably with expansion in numbers of agricultural livestock. Ammonia reacts with acid pollutants such as the products of SO <sub>2</sub> and NO <sub>x</sub> emissions to produce fine ammonium (NH <sub>4</sub> <sup>+</sup> )- containing aerosol which may be transferred much longer distances (can therefore be a significant trans-boundary issue.)	Adverse effects are as a result of nitrogen deposition leading to eutrophication. As emissions mostly occur at ground level in the rural environment and NH <sub>3</sub> is rapidly deposited, some of the most acute problems of NH <sub>3</sub> deposition are for small relict nature reserves located in intensive agricultural landscapes.
Nitrogen oxides NO <sub>x</sub>	Nitrogen oxides are mostly produced in combustion processes. About one quarter of the UK's emissions are from power stations, one-half from motor vehicles, and the rest from other industrial and domestic combustion processes.	Deposition of nitrogen compounds (nitrates (NO <sub>3</sub> ), nitrogen dioxide (NO <sub>2</sub> ) and nitric acid (HNO <sub>3</sub> )) can lead to both soil and freshwater acidification. In addition, NO <sub>x</sub> can cause eutrophication of soils and water. This alters the species composition of plant communities and can eliminate sensitive species.
Nitrogen (N) deposition	The pollutants that contribute to nitrogen deposition derive mainly from NO <sub>x</sub> and NH <sub>3</sub> emissions. These pollutants cause acidification (see also acid deposition) as well as eutrophication.	Species-rich plant communities with relatively high proportions of slow-growing perennial species and bryophytes are most at risk from N eutrophication, due to its promotion of competitive and invasive species which can respond readily to elevated levels of N. N deposition can also increase the risk of damage from abiotic factors, e.g. drought and frost.
Ozone (O <sub>3</sub> )	A secondary pollutant generated by photochemical reactions from NO <sub>x</sub> and volatile organic compounds (VOCs). These are mainly released by the combustion of fossil fuels. The increase in combustion of fossil fuels in the UK has led to a large increase in background ozone concentration, leading to an increased number of days when levels across the region are above 40ppb. Reducing ozone pollution is believed to require action at international level to reduce levels of the precursors that form ozone.	Concentrations of O <sub>3</sub> above 40 ppb can be toxic to humans and wildlife, and can affect buildings. Increased ozone concentrations may lead to a reduction in growth of agricultural crops, decreased forest production and altered species composition in semi-natural plant communities.
Sulphur Dioxide SO <sub>2</sub>	Main sources of SO <sub>2</sub> emissions are electricity generation, industry and domestic fuel combustion. May also arise from shipping and increased atmospheric concentrations in busy ports. Total SO <sub>2</sub> emissions have decreased	Wet and dry deposition of SO <sub>2</sub> acidifies soils and freshwater, and alters the species composition of plant and associated animal communities. The significance of impacts depends on levels of deposition and the

Pollutant	Source	Effects on habitats and species
	substantially in the UK since the 1980s.	buffering capacity of soils.

3.4.2 Sulphur dioxide emissions are overwhelmingly influenced by the output of power stations and industrial processes that require the combustion of coal and oil. Ammonia emissions are dominated by agriculture, with some chemical processes also making notable contributions. As such, it is unlikely that material increases in SO<sub>2</sub> or NH<sub>3</sub> emissions will be associated with Local Development Frameworks. NOx emissions, however, are dominated by the output of vehicle exhausts (more than half of all emissions). Within a 'typical' housing development, by far the largest contribution to NOx (92%) will be made by the associated road traffic. Other sources, although relevant, are of minor importance (8%) in comparison<sup>26</sup>. Emissions of NOx could therefore be reasonably expected to increase as a result of greater vehicle use as an indirect effect of the LDF.

3.4.3 According to the World Health Organisation, the critical NOx concentration (critical threshold) for the protection of vegetation is 30 µgm<sup>-3</sup>; the threshold for sulphur dioxide is 20 µgm<sup>-3</sup>. In addition, ecological studies have determined 'critical loads'<sup>27</sup> of atmospheric nitrogen deposition (that is, NOx combined with ammonia NH<sub>3</sub>) for key habitats within the European sites considered within this assessment (Table 4.). Epping Forest SAC exceeds the critical loads for nitrogen deposition and NOx levels. Lee Valley SPA/Ramsar is also experiencing high levels of NOx.

**Table 4. Critical nitrogen loads, actual rates of nitrogen deposition and NOx concentrations<sup>28</sup> for the European sites considered within this assessment (APIS<sup>29</sup> data accessed on 11/10/10)**

Site	Grid reference <sup>30</sup>	Key habitats	Minimum critical loads (Kg N/ha/yr) <sup>31</sup>	Actual nitrogen deposition <sup>32</sup>	Actual NOx concentration (µgm <sup>-3</sup> )
Epping Forest SAC	TQ389904	Beech woodland Lowland heathland	10	43.8	50.2
Lee Valley SPA and Ramsar	TQ355893	(Grazing marsh) <sup>33</sup>	(20)	17.6	59.3

3.4.4 The National Expert Group on Transboundary Air Pollution (2001)<sup>34</sup> concluded that:

<sup>26</sup> Proportions calculated based upon data presented in Dore CJ et al. 2005. UK Emissions of Air Pollutants 1970 – 2003. UK National Atmospheric Emissions Inventory. <http://www.airquality.co.uk/archive/index.php>

<sup>27</sup> The critical load is the rate of deposition beyond which research indicates that adverse effects can reasonably be expected to occur

<sup>28</sup> As NO<sub>2</sub>

<sup>29</sup> UK Air Pollution Information System. <http://www.apis.ac.uk>

<sup>30</sup> For sites outside Waltham Forest borough, grid references relate to the closest points to the District.

<sup>31</sup> APIS provides a critical load range – on a precautionary basis, this assessment uses the lowest figure in that range

<sup>32</sup> To a resolution of 5 km

<sup>33</sup> Although parts of Lee Valley SPA/Ramsar habitat consists of grazing marsh, within Waltham Forest the underlying habitat is standing open water, for which there is no defined critical load for atmospheric pollution available from APIS. Therefore grazing marsh is included as the best available habitat indicator. It is important to bear in mind that any interpretation of the data should account for the fact that the critical loads and actual deposition are therefore not directly comparable at the given grid reference.

- In 1997, critical loads for acidification were exceeded in 71% of UK ecosystems. This was expected to decline to 47% by 2010.
  - Reductions in SO<sub>2</sub> concentrations over the last three decades have virtually eliminated the direct impact of sulphur on vegetation.
  - By 2010, deposited nitrogen was expected to be the major contributor to acidification, replacing the reductions in SO<sub>2</sub>.
  - Current nitrogen deposition is probably already changing species composition in many nutrient-poor habitats, and these changes may not readily be reversed.
  - The effects of nitrogen deposition are likely to remain significant beyond 2010.
  - Current ozone concentrations threaten crops and forest production nationally. The effects of ozone deposition are likely to remain significant beyond 2010.
  - Reduced inputs of acidity and nitrogen from the atmosphere may provide the conditions in which chemical and biological recovery from previous air pollution impacts can begin, but the timescales of these processes are very long relative to the timescales of reductions in emissions.
- 3.4.5 Grice et al<sup>35 36</sup> do however suggest that air quality in the UK will improve significantly over the next 15 years due primarily to reduced emissions from road transport and power stations.

#### **Local air pollution**

- 3.4.6 According to the Department of Transport's Transport Analysis Guidance, "Beyond 200m, the contribution of vehicle emissions from the roadside to local pollution levels is not significant"<sup>37</sup>.

---

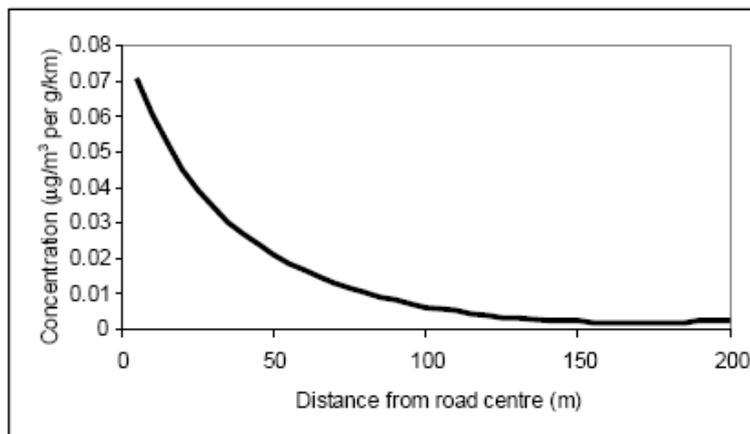
<sup>34</sup> National Expert Group on Transboundary Air Pollution (2001) Transboundary Air Pollution: Acidification, Eutrophication and Ground-Level Ozone in the UK.

<sup>35</sup> Grice, S., T. Bush, J. Stedman, K. Vincent, A. Kent, J. Targa and M. Hobson (2006) Baseline Projections of Air Quality in the UK for the 2006 Review of the Air Quality Strategy, report to the Department for Environment, Food and Rural Affairs, Welsh Assembly Government, the Scottish Executive and the Department of the Environment for Northern Ireland.

<sup>36</sup> Grice, S., J. Stedman, T. Murrells and M. Hobson (2007) Updated Projections of Air Quality in the UK for Base Case and Additional Measures for the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007, report to the Department for Environment, Food and Rural Affairs, Welsh Assembly Government, the Scottish Executive and the Department of the Environment for Northern Ireland.

<sup>37</sup> [www.webtag.org.uk/archive/feb04/pdf/feb04-333.pdf](http://www.webtag.org.uk/archive/feb04/pdf/feb04-333.pdf)

**Figure 3. Traffic contribution to concentrations of pollutants at different distances from a road (Source: DfT)**



3.4.7 This is therefore the distance that has been used throughout this HRA in order to determine whether European sites are likely to be significantly affected by development under the DMP. Given that sites detailed in Table 5 lie within 200m of major roads that may be regularly used by vehicle journeys arising from Waltham Forest as a result of the increased population, and potentially other development plans, it was concluded that air quality should be included within the scope of this assessment. The location of these roads in relation to the European sites is shown in Figure 1.

**Table 5. Major roads within 200 m of the European sites considered in detail within this assessment**

Site	Proximity to major roads
Epping Forest SAC	Lies adjacent to, or within 200m of, the M25, A104, A121, A110, A406, A1009, A112, A1069, A113, A11, A12 and A503 as well as smaller, but well-used B-roads and more minor routes.
Lee Valley SPA/Ramsar	Lies adjacent to the A503 and A414 and within 200m of the A1055

**Diffuse air pollution**

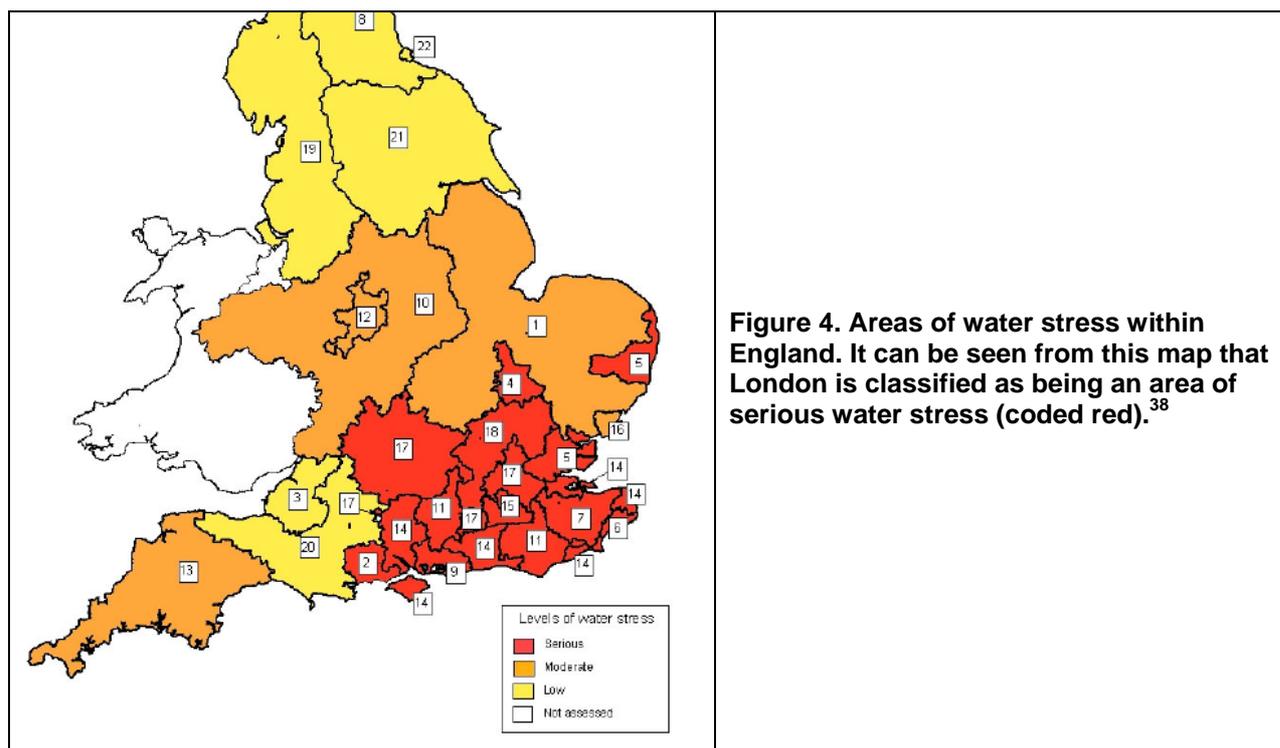
3.4.8 In addition to the contribution to local air quality issues, development can also contribute cumulatively to an overall deterioration in background air quality across an entire region. In July 2006, when this issue was raised by Runnymede Borough Council in the South East, Natural England advised that their Local Development Framework ‘*can only be concerned with locally emitted and short range locally acting pollutants*’ as this is the only scale which falls within a local authority remit. It is understood that this guidance was not intended to set a precedent, but it inevitably does so since (as far as we are aware) it is the only formal guidance that has been issued to a Local Authority from any Natural England office on this issue.

3.4.9 In the light of this and our own knowledge and experience, it is considered reasonable to conclude that it must be the responsibility of higher-tier plans to set a policy framework for addressing the cumulative diffuse pan-authority air quality impacts, partly because such impacts stem from the overall quantum of development within a region (over which individual Councils have little control), and since this issue can only practically be addressed at the highest pan-

authority level. In the light of this, diffuse air quality issues will not therefore be considered further within this HRA.

### 3.5 Water abstraction

3.5.1 London is generally an area of high water stress (see Figure 4).



3.5.2 Development within Waltham Forest Borough over the plan period will increase water demand.

3.5.3 Waltham Forest lies within Thames Water’s supply area, specifically their London Resource Zone. The majority of London’s public water supplies come from the rivers Thames and Lee (with approximately 80% of London’s supply taken from the freshwater River Thames upstream of Teddington Weir). The remaining supplies are obtained from groundwater sources situated beneath the London Boroughs from the confined chalk aquifer. Water supply for Thames Water’s London Resource Zone (WRZ) does involve some abstraction from the Lee Valley Reservoirs (including Walthamstow Reservoirs), which are also subject to an agreement to (if necessary) supply Essex and Suffolk Water with up to 91Ml/day average bulk transfer. The bulk supply is provided from the King George and William Girling Reservoirs in the Lee Valley, potentially supported by abstraction directly from the River Lee at defined intakes, if required.

3.5.4 In the London CAMS document, the Environment Agency identifies the River Lee as ‘over abstracted’, which means that no further consumptive abstraction licences will be issued (except under conditions of very high flow), and no further consumptive abstraction can take place within this catchment.

<sup>38</sup> Figure adapted from Environment Agency. 2007. Identifying Areas of Water Stress. <http://publications.environment-agency.gov.uk/pdf/GEHO0107BLUT-e-e.pdf>

- 3.5.5 As such, with no other schemes in place, increased residential development within Waltham Forest could lead to a need for damaging levels of abstraction from the Lee Valley SPA when considered cumulatively with all other new development in the London WRZ and further north in Hertfordshire that would ordinarily entail water supply from the Lee Valley. However, Thames Water have implemented a major water supply project in London which involves abstraction and desalination of water from the tidal River Thames (the Thames Gateway Water Treatment Plant), such that damaging levels of abstraction from the River Lee to supply Waltham Forest (or other parts of London) should be avoidable.
- 3.5.6 It should be noted that Thames Water's draft Water resources Management Plan identifies that this *"initially brings the zone back into balance (2009/10 to 2011/12), however the natural growth in demand due to housing growth and increased usage by existing households outstrips demand management and the deficit steadily grows thereafter."* Thames Water proposes to address this imbalance through demand management approaches and ultimately, through provision of an Upper Thames reservoir at Abingdon, which would provide a secure supply in the longer term.
- 3.5.7 Thames Water's Resources Management Plan has been subject to public enquiry, with the outcome expected in November. Therefore there is currently uncertainty over the future of water resource management within the area that covers both Waltham Forest and Lee Valley SPA and Ramsar sites. Given this uncertainty, it is necessary to perform an initial screen to determine whether the Waltham Forest DMP contains policy measures that could lead to a significant adverse effects, either alone or 'in combination' with other plans and projects, on these European sites.

## 3.6 Water Quality

- 3.6.1 As wastewater for Waltham Forest is currently processed by Beckton Sewage Treatment Works and discharged into the Thames, increases in volumes of wastewater that could result from policies promoting housing and employment development are not likely to have a significant adverse effect on the Lee Valley SPA and Ramsar site.
- 3.6.2 The reservoirs do lie in close proximity to the A503, and therefore there is potential for point source pollution events to arise. However, in reality the implementation by transport operators of measures to avoid point source pollution is not the responsibility of the Council, and it is also likely that the levels of development promoted within the CS and DMP will lead to a minimal increase in risk of such events occurring, given that the likelihood of a catastrophic spillage event may already be considered low. The River Lee and River Lee Navigation separate the reservoirs from most other development, and do not in themselves form a part of the SPA or Ramsar within Waltham Forest.
- 3.6.3 In conclusion, no European designated sites are susceptible to reduced water quality through STW discharges or direct run-off arising from development within Waltham Forest borough, and therefore such considerations are not considered further within the HRA.

## 4 Screening

- 4.1.1 The following tables present the screening assessments for each Development Management Policy. Green shading in the final column indicates a policy option that has been screened out of further consideration due to the absence of any mechanism for an adverse effect on European sites. Orange shading indicates the need for further consideration at Appropriate Assessment stage.
- 4.1.2 Where policies or objectives have been screened out as requiring further Appropriate Assessment they may still provide positive options for mitigation and this has been acknowledged where appropriate.

**Table 6 – HRA Screening of Waltham Forest Development Management Policies**

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
DM1 – Mixed Use Development	SO1 CS1	<p>The Council will seek where appropriate a mix of uses in development in the key growth areas, and other appropriate areas in the borough, including a contribution towards the supply of housing and employment.</p> <p>The Council will consider:</p> <ul style="list-style-type: none"> <li>Character</li> <li>Size</li> <li>Function</li> <li>Extension of floor space</li> <li>Frontages</li> <li>Funding and viability</li> <li>Developer contributions</li> <li>Other planning objectives</li> </ul> <p>in making decisions</p>	<p>The policy does not promote development per se (this is dealt with in the Core Strategy), and the supporting text to the policy makes clear that mixed use development will generally have benefits (e.g. improved air quality through reduced need to commute).</p> <p>While in itself the content of this policy will not lead to any likely significant effects on European designated sites, it does not explicitly consider ecological constraints.</p> <p>Of particular relevance would be development at Blackhorse Lane and the Northern Olympic Fringe, where in the HRA of the CS we recommend the addition of text that states “<i>development where its construction or direct use would adversely affect the international designations of the Lee Valley water bodies will not be permitted,</i>” and that development within these AAPs will “<i>incorporate all measures necessary to avoid adverse effects on the Lee Valley SPA and Ramsar through proximity of development.</i>”</p> <p>The type and function of development would be a factor in determining adverse effects (e.g. avoidance of noisy and intrusive developments).</p>

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
			<p>It is noted however, that policy DM35 seeks to protect waterways (which would include Lee Valley SPA/Ramsar) from inappropriate development, and that part of DM1 states that a consideration will be</p> <p>c) whether the mix of uses would be appropriate to the function of the proposed development, <b>and not demonstrably conflict with other policies in this plan</b></p> <p>Therefore this should ensure that no adverse effects occur on European designated sites as a result of policy DM1.</p>
DM2 – Meeting Housing Targets	SO2 CS2	<p>Redevelopment, conversion or changes of use of land or buildings involving the loss of residential accommodation will only be permitted where:</p> <p>The proposal seeks to combine separate flats within the original development in order to create a family sized (3 or more bed rooms) home;</p> <p>Residential use is incompatible with the surrounding environment;</p> <p>The overriding need for an alternative use can be demonstrated to the Council’s satisfaction or is required to meet other land use objectives;</p> <p>Redevelopment resulting in a loss of housing is necessary to ensure better quality homes.</p>	No HRA implications as does not promote any increases in housing and therefore population.
DM3 – Affordable Housing Provision	SO2 CS2	<p>The Council aim to maximise the amount of affordable housing in the Borough by:</p> <p>Seeking a requirement from all residential development of 10 or more dwellings to make a contribution.</p> <p>Requiring applicants who offer less than 50% affordable housing to justify (financial and viability) the level of affordable housing provision on each site;</p> <p>Where housing schemes offer less than 50%</p>	No HRA implications

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		affordable housing and other obligations, the Council will require the shortfall to be treated as a deferred contribution to ensure schemes provide the maximum reasonable amount of affordable housing on each site; Where development sites are phased, the Council will seek to use legal agreements to ensure that all parts or phases make an appropriate affordable contribution; The Council will require affordable housing schemes to be 'tenure blind' to ensure homes are indistinguishable from one another; The Council will seek to ensuring all affordable housing contributions are made on site. In exceptional circumstance, where this cannot practicably be achieved on site, the Council may accept off-site affordable housing, or payment-in-lieu.	
DM4 – Residential Extensions and Alterations	SO2 CS2	The council will normally expect developments involving alterations and/or extensions to buildings to:  Respect design conventions of the original building; Retain and restore existing traditional features and materials, where appropriate; The occupiers of the existing building and properties nearby should not suffer any reasonable loss of privacy, outlook or sunlight/daylight; When it is possible to make use of the roof space, the proposed dormer window or roof extension should be placed well away from the eaves and flank or party walls, be sympathetic in materials and design and should not raise the height of the ridge. Normally, such an extension/dormer should not be located on the front elevation; and Extensions beyond the front main wall of the house, other than front entrance porches, are normally unacceptable. Extensions to the side of the house will only be favourably considered where there is a high standard of design in style and materials sympathetic to the property and their area.	No HRA implications as scale is likely to be very small
DM5 – Housing Mix	SO2 CS2	The Council will seek all housing developments to provide a range of dwelling sizes and tenures particularly focusing on the provision of family sized units in line with the Council's preferred housing mix table.	No HRA implications
DM6 – Housing Conversions	SO2 CS2	The Council will protect larger housing from the conversion of dwellings to self contained units and non self contained units (such as	No HRA implications

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p>hostels and HMOs) where:</p> <p>A dwelling has a gross original internal floorspace of less than 120 sqm  A dwelling is located in a 'restricted conversions areas';  Where there is pressure on existing levels of on-street parking, open spaces and other services.  Takes place within 100 metres of another dwelling conversion;  It does not create at least one family sized unit of 70sqm on the ground floor with access to a dedicated rear garden; and  Where appropriate parking spaces cannot be provided off street.</p> <p>Conversions of dwellings of more than 120 sqm will only be permitted where:</p> <p>At least one family sized unit of 70sqm on the ground floor with access to a dedicated rear garden;  It is close to public transport, shops and services;  It provides the appropriate levels of private amenity space;  It respects and reflects the original architecture;  It provides high quality doors and windows;  It incorporates high quality landscaping;  It is well insulated from noise;  It provides good refuse and storage facilities;  It provides appropriate levels of safe and secure cycle and car parking; and  Is energy efficient.</p> <p>The Council will resist the conversion of any larger housing to any conversions to Buildings in Multiple Residential Occupation.</p>	
DM7 – Amenity and Internal Space	SO2 CS2	<p>Internal Spaces:</p> <p>All new residential development, including from conversions and change of use should meet the minimum space standards set out in the Council's preferred internal space standards table(s).</p> <p>External Spaces:</p> <p>Proposals for new dwellings, both new build and from conversions will be required to provide 15 sqm per habitable room of private amenity space. In family housing this should be in the form of a separate rear garden area.</p>	<p>No HRA implications.</p> <p>Scale of external provision does not contribute significantly towards alternative natural greenspace.</p>

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p>Back Land Development:</p> <p>The Council will resist residential development on back garden land</p>	
DM8 – Housing Quality and Accessibility	SO2 CS2	<p>Proposals for all new housing development should be of a high quality of design and construction. In addition, development should:</p> <p>Positively respond to the physical context of the site and its surroundings; Provide satisfactory levels of sunlight, daylight, privacy and outlook; Not harm the local environment or harm the amenity of neighbouring properties; Achieve at least minimum space standards for internal rooms; Provide an appropriate level of well-designed, appropriately located and usable amenity space; Where family housing is proposed, provide an appropriate level of private garden space; Provide adequate and well-designed arrangements for the storage collection and disposal of refuse and recycling; Provide an appropriate level of safe and secure cycle parking; Take an integrated, design-led approach to car parking which is appropriately sited and supports the street scene; Include high quality materials which are attractive and durable; Maximise energy efficiency and usage of renewable resources; Be built to Lifetime Homes standards with 10% of units being suitable or easily adaptable for wheelchair users; Optimise housing densities in areas of high public transport accessibility and with a good range of accessible shops and services; and Seek to address the CABE/HBF “Building for Life” criteria</p>	<p>No HRA implications.</p> <p>Contains positive measures in seeking to avoid harm to the environment from any new housing development.</p> <p>Also recognises the need for sustainable waste management.</p> <p>Recognises the need to maximise efficient use of resources.</p>
DM9 – Gypsy and Traveller Provision	SO2 CS2	<p>The Council will apply the following criteria when considering applications for additional Gypsy and travellers provision in the borough. New or extended sites should:</p> <p>Be justified in terms of need; Have suitable access for the type of vehicles that can reasonably be expected to use the site; Have access from the public highway and provision for parking, turning and servicing on</p>	<p>No HRA implications – aspects such as water quality, and air quality are considered.</p> <p>Sites, along with all new development, should avoid impacts through proximity to European designated sites. This will be covered through HRA comments incorporated in policy</p>

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p>site to ensure road safety for occupants and visitors</p> <p>Be able to provide basic amenities, water, sewerage;</p> <p>Be suitable for housing; and</p> <p>Not have any relevant pre-existing policy designations that restrict the use of the site such as Metropolitan Open Land;</p> <p>The site layout, design and appearance should cause limited harm to visual amenity and adequate planting and landscaping should be incorporated;</p> <p>Be well integrated with surrounding communities;</p> <p>Be of appropriate size of site to its local context and in relation to the local infrastructure and population size and density; and</p> <p>Not be in an area at high risk of flooding.</p>	CS1.
DM10 – Specialised Housing	SO2 CS2	<p>The Council will support development of sheltered housing, care homes, supported housing, hostels and other short term accommodation provided that the development:</p> <p>Contributes to creating mixed and inclusive communities;</p> <p>Doesn't lead to an over concentration of related uses in an area;</p> <p>There is a justified local need;</p> <p>Is suitable for the intended occupiers in terms of the standard of facilities, the level of independence and the provision of support and/or care;</p> <p>Is located in existing residential areas and close to local shopping facilities, public transport services, amenity space; and</p> <p>Does not result in the unjustified loss of a larger home.</p> <p>The Council will resist development that involves the net loss of sheltered housing, care homes, supported housing, hostels and other temporary accommodation unless:</p> <p>It can be demonstrated that there is a surplus of that form of accommodation in the area; or</p> <p>It can be demonstrated that the existing accommodation is incapable of meeting contemporary standards of care.</p>	No HRA implications
DM11 – Resource Efficiency and High Environmental Standards	SO5 CS5	<p>The Council will ensure sustainable resource management and high environmental standards by:</p> <p>Requiring new developments to be designed with regards to sustainable</p>	The policy contains measures that are likely to have positive impacts on European sites through improved resource efficiency

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p>development principles and to achieve or exceed the government's stepped targets towards zero carbon by 2016 for residential developments and by 2019 for non-residential developments;</p> <p>Requiring applications for new developments to be submitted with an Energy Assessment that demonstrates that the energy demand of a development and the carbon emission savings from energy efficiency, efficient energy supply and renewable energy measures;</p> <p>Requiring financial contributions into a carbon offset fund, where a development can demonstrate that achieving the required carbon reductions on site is not achievable;</p> <p>Requiring major developments to achieve at least Code Level 4 and BREEAM 'excellent' or equivalent standards;</p> <p>Expecting new developments to minimise the use of new material, and reuse and recycle materials and other resources from all stages of development, design, demolition, construction and operation; and</p> <p>Encouraging high environmental standards in existing developments wherever possible through retrofitting; requiring conversions or extensions of existing buildings to meet relevant Code for Sustainable Homes and BREEAM targets and requiring, where appropriate, simple and cost effective energy efficiency measures to be carried out on the existing buildings when applying for extensions or conversions.</p>	
DM12 – Decentralised and Renewable Energy	SO5 and CS5	<p>The Council will seek to reduce carbon emissions by:</p> <p>Requiring major developments to demonstrate how they reduce carbon emissions through the use of decentralised energy systems and renewable energy in line with the energy hierarchy and London Plan targets;</p> <p>Requiring new developments to assess opportunities for and implement decentralised heat and energy networks where appropriate, including links into and expansion of existing networks, unless it is demonstrated that there is not enough heating demand for an efficient connection;</p> <p>Requiring major developments that have demonstrated that the connection to an existing or the implementation of a new</p>	<p>While it is not anticipated that decentralised renewable energy operations will be on a scale that would create likely significant effects on European sites, it is positive that the Council will require all schemes that will incorporate biomass or CHP to demonstrate no reduction in local air quality and to show that emissions limits will be complied with and regularly monitored.</p>

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p>decentralised energy network is not feasible, to be connection ready for future networks and to make a contribution towards the installation of an area wide decentralised energy network or other carbon reduction measures within the borough, where appropriate;</p> <p>Requiring new developments to reduce the site's carbon emissions through on-site renewable energy that is appropriate to the location and does not adversely affect the development or neighbourhoods; and</p> <p>Seeking a monetary contribution where the Council is satisfied that a development has reduced its energy demand as low as practical and feasible and cannot reduce its carbon emissions in line with government and regional targets from on-site renewable technology.</p>	
DM13 – Open Space, Sports and Recreation	SO6 CS6	<p>Where development proposals within the Green Belt or Metropolitan Open Land (MOL) are considered appropriate they should, in accordance with PPG2 and the London Plan:</p> <p>Implement a high standard of design in terms of scale, siting, landscaping and response to context;</p> <p>Complement and improve the quality of the open space uses.</p> <p>Development proposals affecting an open space must not adversely affect, and where possible enhance:</p> <p>the inherent character of the space</p> <p>access to and within the open space where appropriate</p> <p>biodiversity value.</p> <p>New usable open spaces and landscaping must be provided where appropriate, particularly in areas of deficiency and/or deprivation. Where new development cannot contribute to usable open space provision or landscaping on-site, or provision is deemed insufficient to the scale or nature of the development, financial contributions will be sought.</p> <p>Proposals for new areas of open space and landscaping must be accompanied by a maintenance plan at planning application stage to ensure the long-term quality.</p>	<p>No HRA implications – seeks to protect the ecological integrity of the Lea Valley Park and acknowledges that development will be in line with the Park Development Framework.</p> <p>Also recognises the need for green infrastructure provision, and provides mechanisms for delivery.</p> <p>The HRA of the Core Strategy noted that the CS should confirm that green space delivery must be phased to keep pace with development, and that it must be of an appropriate form to deflect excessive recreational pressure from European sites. This will be addressed within CS policy.</p>

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p><b>Allotments</b></p> <p>The intensification of land currently used to grow food will be acceptable where it is practicable to do so. In appropriate circumstances, the Council will expect development proposals to contribute to the supply, quality and accessibility of allotments and other spaces on which to grow food and plants.</p> <p><b>Parks and Gardens Including Those of Local Historic Interest</b></p> <p>All parks within the Borough will be retained and development proposals will only be acceptable where it is ancillary or complementary to the open space use and inherent character. In addition, development proposals should demonstrate that there will be no adverse impacts to the setting or visual appearance of historic parks and gardens.</p> <p><b>The Lee Valley Regional Park</b></p> <p>Development proposals affecting the Lee Valley Regional Park must not contribute to adverse impacts on amenity, ecological integrity or visitor enjoyment of the Park; and will be expected to deliver enhancements where possible.</p> <p><b>Encouraging Active Lifestyles and Providing Recreational Facilities</b></p> <p>Where appropriate, development proposals will be expected to contribute to the provision of exercise and recreational facilities either on or off site; and, maintenance plans must be submitted at planning application stage for all new facilities provided.</p> <p>The provision of play space must be in accordance with the Mayor's SPG Providing for Children and Young People's Play and Informal Recreation and the Urban Design SPD.</p>	
DM14 – Co-ordinating Land Use and Transport	SO8 CS8	<p>The Council will ensure that development is properly integrated with the transport network by:</p> <p>Promoting mixed-use developments and development in locations that minimise the need to travel; promoting new</p>	The policy contains a number of approaches that should help to improve air quality within the borough, with specific references to protection of Epping Forest SAC. The policy as a whole should help to avoid any adverse effects

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p>developments, and in particular high trip generating developments, in locations that are highly accessible by public transport and within easy access of day-to-day facilities and services;</p> <p>Requiring developments to assess and address access and movement to, from and within the site by all modes of transport and sufficient integration of new developments with the existing transport networks and to create good connections to existing neighbourhoods and town centres;</p> <p>Requiring developments to ensure sufficient transport capacity to meet additional travel demand generated by the development;</p> <p>Requiring major developments to prepare a transport assessment or transport statement in line with DfT thresholds and standards in order to assess the implications of new development on the transport networks and demonstrate how any potential impacts will be mitigated;</p> <p>Requiring developments with significant transport impacts to submit a travel plan including defined targets, implementation and funding, and monitoring regime;</p> <p>Where appropriate, requiring financial contributions from developments to mitigate expected transport impacts and to improve access and movement by sustainable modes of transport;</p> <p>Requiring transport assessment and travel plans to include considerations of impacts on European sites; and</p> <p>Having a presumption against granting of planning permissions for any development that</p> <ul style="list-style-type: none"> <li>- cannot demonstrate no requirement for increased levels of private car access (except low emission vehicles) when sited within 200m of the Epping Forest SAC boundary or</li> <li>- cannot supply robust plans for links to public transport, and alternative means of mobility, such as walking and cycling, where there is a likelihood that otherwise, traffic levels on roads within 200m of SAC will be increased and there where public transport upgrades are required, new infrastructure will need to be phased so that this is in place prior to completion of development (in line with CS1).</li> </ul> <p>Where necessary, developer contributions should be required to achieve this.</p>	<p>on Epping Forest SAC.</p>
DM15 – Sustainable Transport	SO8 CS8	<p><b>Sustainable Transport Network</b> The Council will actively encourage sustainable travel by:</p>	<p>Ensuring the prominence of public transport, cycling and walking as modes of transport will contribute</p>

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
Network		<p>Requiring new developments to develop a well-connected network of streets that optimises permeability and legibility and adequately balances the needs of the different modes;</p> <p>Requiring new developments to provide convenient, accessible, safe and well designed walking and cycling routes and facilities both within the development and connecting to adjacent neighbourhoods;</p> <p>Requiring developments to contribute towards creating activity and natural surveillance and thereby contributing to an attractive and safe environment for pedestrians, cyclists, and the community;</p> <p>Requiring developments to provide features associated with pedestrian and cycle access such as seating, secure and convenient cycle parking, and workplace showers and lockers;</p> <p>Ensuring that developments do not have a significant adverse impact on the walking and cycling environment; and</p> <p>Where appropriate requiring developments to contribute towards enhancing public transport interchange and connections, and providing high quality public transport stops and shelters in convenient and safe locations.</p>	to reductions in air pollution within Waltham Forest.
DM16 – Managing Private Motorised Transport	SO8 CS8	<p>The council will make the best use of Waltham Forest’s available highway network and public realm by:</p> <p>Where developments connect to the highway network, requiring new roads, footways, cycleways and other access routes to be designed and constructed to a standard that is considered appropriate for adoption;</p> <p>Requiring developments to connect to the highway network in a way that encourages road users to use of the most appropriate road in accordance with Waltham Forest’s road hierarchy, discouraging through-traffic from using local roads and avoiding direct vehicular access to the TLRN and other major roads;</p> <p>Requiring developments to demonstrate that the development will not cause any harm to highway safety nor impede pedestrian or cyclist movement and requiring developments to contribute towards improving road safety where appropriate; and</p> <p>Requiring developments to contribute towards a high quality public realm taking a holistic approach to public realm design; appropriately balancing the requirements of the different road users.</p>	No HRA implications

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
DM17 – Parking	SO8 CS8	<p>The Council will seek to effectively manage parking and ensure the provision of safe and attractive parking facilities by:</p> <p>Requiring developments to provide well designed, high quality parking facilities in accordance with the Council's maximum car parking and minimum cycle parking standards as set out in Appendix 4;</p> <p>Encouraging car-free and car-capped developments in locations that are easily accessible by public transport and where an on-street parking management regime is in place or will be introduced;</p> <p>Requiring off-street parking to be designed to incorporate safety and security measures, to minimise land take for parking and to minimise the urban heat island effect by providing adequate soft landscaping, permeable surfaces and other treatments to offset adverse impacts of surface water run-off; and</p> <p>Encourage the allocation of spaces for low emissions vehicles, car clubs, pool cars, city bike schemes, and electric vehicle charging equipment; and</p> <p>Requiring developments to provide an electrical charging point for one in five parking spaces.</p>	<p>No HRA implications although the encouragement of car-free developments could be of benefit to European sites where development would otherwise lead to increased traffic within 200m (see DM14).</p>
DM18 – Social Infrastructure	SO4 CS4	<p><b>Resisting the Loss of Social Infrastructure</b></p> <p>The Council will resist the loss of social infrastructure facilities unless all of the following conditions are met:</p> <ol style="list-style-type: none"> <li>No shortfall in provision will be created by the loss;</li> <li>Adequate alternative facilities are already available in the area;</li> <li>A replacement facility that meets the needs of the local population is provided, with a preference for on-site provision</li> <li>The specific social infrastructure facility is no longer required in its current use. Where this is the case, evidence will be required to show that the loss would not create, or add to, a shortfall in provision for the specific infrastructure type and demonstrate that there is no demand for any other suitable community use on the site.</li> </ol> <p><b>Meeting Increased Demand for Infrastructure</b></p> <p>To help to meet increased demand for social infrastructure, the Council will expect:</p> <ol style="list-style-type: none"> <li>Development schemes that result in any</li> </ol>	<p>Although this policy does not provide any explicit protection for European designated sites in relation to development of social infrastructure it is important that the policy is considered as part of the overall Development management DPD, which does contain measures to enable the conclusion that development would not take place in a location or on a scale that would lead to adverse effects on European sites.</p> <p>This policy references such concerns either through reference to compliance with other DM policies.</p>

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p>unmet additional need for social infrastructure to contribute towards supporting existing facilities or providing for new facilities;</p> <p>b. Suitable developments to make rooms available for local community groups to use or hire at a discounted rate, particularly where a development displaces or replaces a facility.</p> <p><b>New Social Infrastructure</b> New social infrastructure uses must be:</p> <p>a. Close or accessible to the community they serves;</p> <p>b. Accessible by a range of transport modes, in particular walking, cycling and public transport and be accompanied by a Travel Plan;</p> <p>c. Appropriately located in relation to their scale and the needs of the catchment that they serve;</p> <p>d. New social infrastructure facilities must be provided in buildings which are flexible and sited to maximise the shared use of premises; and</p> <p>e. Considerations for social infrastructure provision will include a need to comply with all other policies in this Development Plan Document</p> <p><b>Educational facilities</b> New developments must be:</p> <p>a. Fit for purpose, which could include being acceptable in terms of the space standards specified by the Department for Education for primary, secondary educational facilities;</p> <p>b. Located in proximity to playing fields that can be used; and</p> <p>c. In buildings which are flexible and sited to maximise the shared community use of premises and associated facilities. Planning consent will be given for temporary classrooms on school sites when:</p> <p>a. It can be shown that there is a significant short term need for extra school capacity that cannot be provided in the existing school.</p> <p><b>Cultural and Leisure Facilities</b> The Council will protect existing leisure and cultural facilities by resisting their loss unless:</p> <p>i. There is no forthcoming demand on leisure centres in the Borough;</p> <p>ii. Adequate alternative facilities are already available in the area, and therefore no shortfall in provision will be created by the loss; and</p> <p>iii. The leisure facility is no longer required and it can be demonstrated that there is no</p>	

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p>demand for an alternative leisure use of the site that would be suitable. The Council will encourage the development of new leisure centres that:</p> <ul style="list-style-type: none"> <li>i. Are located in areas currently under-served for leisure centres</li> <li>ii. Improving the quality, usability and accessibility of existing leisure centres;</li> <li>iii. Allow for the co-location of other facilities; and</li> <li>iv. Improve access to open spaces and sporting facilities associated with the Olympic Games and their legacy.</li> </ul> <p><b>Health Facilities and Services</b> Provision of health services will be improved by:</p> <ul style="list-style-type: none"> <li>i. Improving the quality, usability and accessibility of existing health facilities, particularly through new and innovative modes of health provision;</li> <li>ii. Encouraging co-location and integration of health services in order to improve access to a wide range of health services for local communities;</li> <li>iii. Working with the NHS Waltham Forest and others to secure investment and funding, achieve good design and deliver excellence for health facilities and services in the Borough; and</li> <li>iv. Expecting new developments that result in any additional need for health infrastructure to contribute towards supporting existing facilities or providing for new facilities.</li> </ul>	
DM19 – Strategic Industrial Locations	SO3 CS3	<p>In principle the following uses will be supported within the Strategic Industrial Locations (SILs), identified on the proposals map:</p> <ul style="list-style-type: none"> <li>- general industry (Use Class B2);</li> <li>- storage and distribution (Use Class B8);</li> <li>- small scale ancillary catering facilities for the needs of workers.</li> </ul> <p>Applications for green industries and waste management facilities will be particularly welcome.</p> <p>Loss of SIL land to alternative uses will be resisted.</p> <p>Proposals should comply with all other relevant aspects of the LDF.</p>	<p>New employment sites, dependent on scale and location, could lead to adverse impacts on European sites. However, the SILs are existing industrial sites.</p> <p>This policy does state that any proposals should comply with other relevant aspects of the LDF (which would include environmental protection).</p> <p>In addition, the policy outlines that support for employment uses is given 'in principle', meaning that criteria will have to be met before approval is given in practice.</p>
DM20 – Borough Employment Areas	SO3 CS3	<p>In principle the following uses will be supported within the Borough Employment Areas identified on the proposals</p>	<p>New employment sites, dependent on scale and location, could lead to adverse impacts on European</p>

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p>map:</p> <ul style="list-style-type: none"> <li>- general business (Use Class B1);</li> <li>- storage and distribution (Use Class B8);</li> <li>- general industry (Use Class B2) that by virtue of its scale, would not be better located within a SIL;</li> <li>- offices (Use Class B1a) that are ancillary to a wider B1, B2 or B8 use;</li> <li>- ancillary uses such as workplace nurseries and small scale catering facilities, that serve the needs of employees, and would not be better located in a local centre.</li> </ul> <p>Other uses will only be permitted in the borough's 4 key growth areas, where they act as a facilitator to an improved and intensified employment offer on site, secure other regeneration benefits, and are considered acceptable in all other respects.</p> <p>New small scale office developments that would not undermine the role of Walthamstow town centre may be permitted, or in other centres or areas well served by public transport.</p> <p>The Council will support the creation of suitable workspace for business start-up and expanding local businesses, especially studio space and craft workshops. The subdivision of large premises for such uses will be supported in principle.</p> <p>Proposals that result in an increase in jobs provided will be supported where such intensification would not have an adverse impact on existing businesses.</p> <p>Proposals should comply with all other relevant aspects of the LDF.</p>	<p>sites.</p> <p>This policy does state that any proposals should comply with other relevant aspects of the LDF (which would include environmental protection).</p> <p>In addition, the policy outlines that support for employment uses is given 'in principle', meaning that criteria will have to be met before approval is given in practice.</p>
DM21 – Non-Designated Employment Areas	SO3 CS3	<p>Within non designated employment land (i.e. land currently or last used for such purposes but not identified on the proposal map), applications for alternative uses will only be permitted in the following circumstances:</p> <ul style="list-style-type: none"> <li>- the site is demonstrated to be no longer fit for employment use;</li> <li>- the Council is satisfied that the proposed use would not be better located in a town or district centre;</li> <li>- mitigation for the loss of employment land is</li> </ul>	<p>No HRA implications - the policy does state that any proposals should be compatible with and suitable to the character and function of their surroundings.</p>

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p>provided in accordance with policy and the Council's Planning Obligations SPD; - in all other respects the proposed use is well designed and suitable to its surroundings.</p> <p>Where land last used for employment is released to other uses, preference will be given to schemes that incorporate social infrastructure including compatible D1 uses such as education and training facilities, day centres, clinics and health centres. Any new social infrastructure will need to accord with the criteria set out in policy DM18.</p> <p>New live/ work premises will be supported where: - a clear need for them has been demonstrated; - the proposal includes adequate provision of useable workspace; - the proposal would not compromise the character and function of the surrounding area.</p> <p>Proposals for studio space and craft workshops will be encouraged within the borough's railway arches, provided these do not undermine the vitality and viability of town and district centres.</p>	
DM22 – Improving Job Access and Training	SO10 CS10	<p>Training Facilities</p> <p>New education and training facilities will be supported within employment land other than that designated as Strategic Industrial Land (SIL), where: it can be demonstrated that no suitable site exists within a town or district centre; provision is made for the site to be accessed by a range of means of transport, not just the private car; the proposal would not conflict with the employment function of the area; the proposal satisfies design criteria set out elsewhere in policies DM30-34.</p> <p>Planning Obligations</p> <p>Where appropriate, opportunities to secure the training and recruitment of local residents as part of new developments will be secured through: local labour agreements and jobs brokerage initiatives; securing financial contributions towards wider employment and training initiatives.</p>	<p>The policy supports positive aspects of other policies in terms of sustainable transport.</p> <p>Although it does allow for development of new facilities these are likely to be limited in scale, and should be covered by social infrastructure under policies CS4 and DM18.</p>

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p>Where financial contributions requested from the development give rise to viability issues, the developer will be expected to demonstrate this to the Council through an open book assessment.</p> <p>Access to Jobs</p> <p>Major employment proposals will be expected to provide a travel plan setting out how the development will be accessed by employees through sustainable modes of transport. Where appropriate, developer contributions will be sought to ensure new employment opportunities are physically accessible to all sectors of the community.</p>	
DM23 – Tourism Development and Visitor Attractions	SO11 CS11	<p>Tourist accommodation</p> <p>New hotels should be directed to designated centres, with Walthamstow town centre being the Council’s preferred location for such use. Guest houses will be welcome in district and neighbourhood centres.</p> <p>In exceptional circumstances such as for a visitor attraction directly linked to an area of nature conservation value, alternative locations may be considered suitable. However, these should be: well served by public transport; accompanied by a statement justifying the proposal; propose mitigation measures for any harm to the local amenity and environment.</p> <p>All proposals for tourist accommodation should make adequate provision for pickup and set down points for taxis and coaches, and an appropriate level of secure cycle storage.</p> <p>Visitor attractions</p> <p>Attractions likely to yield a large number of visitors should be located in Walthamstow town centre. Other locations will only be considered favourably where it can be demonstrated that they are accessible by a range of means of transport, and would not undermine the role and function of the town centre.</p> <p>Provision should be made for appropriate signage, cycle storage, and pickup and set down points for taxis and coaches.</p> <p>Cultural activities such festivals should take place in areas well served by public transport. Proposals should include management plans</p>	<p>Although tourism has potential to increase pressures on European sites through recreational pressure, and dependent on location and access, reduced air quality, this policy makes clear that any relevant proposals must have regard for the functioning of areas of nature conservation interest, and also must demonstrate how they would avoid or mitigate any harmful impacts.</p> <p>The supporting text focuses on improved access to Walthamstow Wetlands (increasing visitor number over 5-fold). Specific proposals that would encourage significantly increased access to Walthamstow Reservoirs would need to be subject to project-level HRA as part of any evidence base to demonstrate that they “will not compromise...unique character and biodiversity value.”</p>

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p>setting out how negative impacts on residential amenity and local businesses will be minimised.</p> <p>Redevelopments within the town centre should be used as an opportunity to enhance the use of Walthamstow Market by increasing pedestrian flows towards this area, and where appropriate the provision of signage to promote its use.</p> <p>Proposals that enable better public access to the borough's natural assets and open spaces, where it can be demonstrated that this will not compromise their unique character and biodiversity value, will be supported.</p> <p>The loss of tourist and leisure attractions to alternative uses will only be allowed where the need for such use no longer exists, or there are overriding regeneration benefits to their loss.</p>	
DM24 – Health and Well-Being	SO13 CS13	<p><b>Health Impact Assessments</b></p> <p>The Council will require all major developments to submit a Health Impact Assessment in order to demonstrate how the proposed development will impact on health inequalities.</p> <p><b>Promoting Everyday Exercise</b></p> <p>The Council will seek to ensure new development promote everyday exercise by:</p> <ul style="list-style-type: none"> <li>Linking it with the walking and cycling networks and wherever possible, creating new through routes;</li> <li>Prioritising the need for people to be physically active as a routine of their daily life;</li> <li>Ensuring local facilities and services are easily accessible by foot, bicycle and other modes of transport involving physical activity; and</li> <li>Improving and enhancing recreational pedestrian and cycle links to ensure it is safe, attractive and welcoming to everyone.</li> </ul> <p><b>Hot Food Takeaways (A5 Uses)</b></p> <p>The Council will resist proposals for Hot Food Takeaways (A5) where:</p> <ul style="list-style-type: none"> <li>It results in a over concentration of such uses which is detrimental to the vitality and viability of town centres, neighbourhood centre or local parade;</li> <li>It forms a cluster of similar uses;</li> <li>the proposal falls with 400m of the boundary of an existing school, youth centre or park;</li> </ul>	<p>The policy has potential benefits to European sites by promoting provision of walking and cycling facilities elsewhere in the borough, thus deflecting users from more sensitive locations.</p>

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p>a proposal is considered to have an unacceptable impact on highway safety; A proposal has a significant impact on residential amenity in terms of noise, vibrations, odours, traffic disturbance, litter or hours of operation; A proposal does not provide effective extraction of odours and cooking smells. A proposal does not provide adequate on site waste storage; A proposal does not pose an unacceptable risk in terms of safety crime and anti-social behaviour.</p>	
DM25 – Environmental Protection	SO13 CS13	<p><b>Development on Contaminated Land</b></p> <p>When considering applications for development on sites which are potentially contaminated, the Council will need to be satisfied that the development can safely be constructed and used. Where necessary developers will be required to enter into planning obligations to investigate and undertake remedial measures prior to development to ensure the land is fit for its proposed end use.</p> <p><b>Development involving Hazardous Products or Processes</b></p> <p>The Council will oppose developments which involve or are likely to be affected by hazardous products or processes where the risk of danger is, in the Council's opinion, unacceptable.</p> <p><b>Air Quality</b></p> <p>New developments should not contribute to or suffer from unacceptable levels of air pollution. Any major development for sensitive uses in areas where levels of air pollution are high will need to be supported by an air quality assessment to allow a full consideration and mitigation of the impact of air pollution on the development.</p> <p><b>Noise Pollution and Vibration</b></p> <p>The Council will resist developments that adversely affect sensitive uses through the generation of significant noise pollution or vibration, unless appropriate mitigation is provided.</p>	In seeking to protect people from polluting activities, the wider environment should also benefit.

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p><b>Light Pollution</b></p> <p>The Council will resist development causing unacceptable levels of light pollution.</p> <p><b>Water Quality</b></p> <p>The Council will oppose development that would pose an unacceptable risk to water quality and support measures to improve water quality.</p>	
DM26 – Managing Changes of Use in Town Centres	SO14 CS14	<p><b>Primary Frontages</b></p> <p>In the primary shopping frontages of Walthamstow and the District Centres, the Council will seek to ensure that retail uses (use class A1) predominate on ground floors. Other uses will be permitted where all the following criteria are met: the use proposed provides a service directly related to a shopping trip (such as banks, building societies, cafés); and the proposal will not result in the equivalent of a group of three or more adjoining standard size shop units in non-retail uses; and the proposal will not result in the proportion of non-retail uses in the relevant frontage exceeding 30% of its total length.</p> <p><b>Secondary Frontages</b></p> <p>Within the secondary shopping frontages of Walthamstow and the District Centres (as defined on the Proposals Map), the Council will seek to maintain and encourage shops (use class A1) at ground floor level. Other uses will be considered as follows: (i) Unless exceptional circumstances can be demonstrated, development at ground floor level should not lead to an over proliferation of non-retail uses comprising Class A2, A3, A4 or A5 uses such that less than 50% of the relevant shopping frontage contains non-retail uses. (ii) Other uses appropriate to a shopping centre including crèches, aid centres, doctors/dentists surgeries may be permitted subject to the contribution the proposals can make to the vitality and viability of the proposed frontage and the centre generally.</p> <p><b>Neighbourhood Retail Parades</b></p> <p>Within Neighbourhood Centres the Council will</p>	No HRA implications

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p>only grant permission for changes of use from shops (use class A1) outside the designated retail parades</p> <p>.</p> <p><b>Local Retail Parades</b></p> <p>Within Local Retail Parades, the Council will only permit changes of use at ground floor level from a shop (use class A1) where:</p> <ul style="list-style-type: none"> <li>i) local residents would still have a reasonable range and choice of essential shops within the parade or within a reasonable walking distance; and</li> <li>ii) the replacement would be a use appropriate to a shopping area (use classes A2, A3, A4, A5) or a social/ community service such as a doctor's/dentist's surgery.</li> </ul> <p>Where the above criteria are not met, permission will only be granted if it can be demonstrated that the unit has been vacant and actively advertised on reasonable and realistic terms for class A1 use for a continuous period of at least 6 months.</p> <p><b>Non designated frontages or parades</b></p> <p>Within the designated boundaries of Walthamstow town centre and the District Centres but outside the primary and secondary frontages, changes of use from retail (class A1) to any other use appropriate to a town or district centre will be permitted subject to amenity and townscape considerations or where such impacts are suitably managed.</p> <p>Outside Designated Centres and Local Retail Parades, the Council will generally permit changes of use at ground floor level from shops (use class A1). Proposals must however meet other policies in this plan.</p> <p><b>Hot Food Takeaways</b></p> <p>With specific reference to A5 uses, where proposals comply with the above policies, the Council will in addition consider all of the following factors:</p> <ul style="list-style-type: none"> <li>i) the location of the proposed uses in relation to nearby schools and residential accommodation;</li> <li>ii) the nature of the operation and the extent to which it would detract from the ability to adopt</li> </ul>	

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p>healthy lifestyles;            ii) the proposed hours of operation;            iii) implications on traffic congestion and parking;            iv) the concentration of other A5 and similar uses; and            v) the practicality of providing extract ducting ventilation and/or noise insulation.</p> <p><b>Townscape Character</b></p> <p>Where proposals comply with the above policies, the Council will in addition consider the impact of the proposals on amenity, the character and function of the parade in which the proposal is to be located. Where the proposed use is inappropriate, planning permission will be refused. Permission will be granted for new shopfronts and signs where:</p> <p>i) the design is related to the scale, proportion and appearance of the building;            ii) the design respects the character of the local area or parade where the proposal is located;            iii) the design retains, and where practicable provides a separate entrance to upper floor accommodation where this is separate from the ground floor use;            iv) principal entrances to upper floor accommodation avoid the rear of buildings where practicable as this can give rise to personal safety and security issues.            v) an appropriately designed shutters is provided. Solid shutters which present blank frontages to shopping streets will not be permitted.</p>	
DM27 – Retail, Office and Leisure Developments	SO14 CS14	<p>The Council will encourage the development of new town uses that support and enhance the viability, vitality and function of the Borough's designated centres and parades by ensuring that:</p> <p>A) Proposals are concentrated within the designated centres and parades taking into account the hierarchy of town centres as set out according to Core Strategy Policy CS14. Proposals within these centres or parades should be of a scale appropriate to the role and character of the centre/parade and its catchment;            B) Out-of-centre proposals will be considered in accordance with government policy guidance as contained in PPS4 (35) or successor documents.            C) The Council will not grant planning</p>	No HRA implications

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		permission for outdoor markets and car boot sales outside the borough's designated centres. New proposals within existing centres will be permitted if no adverse environmental problems are presented, particularly with regard to parking, servicing and delivery, and it can be demonstrated that the existing market in Walthamstow Town Centre will not be adversely affected.	
DM28 – Night Time Economy Uses		<p>The Council will encourage appropriate evening /night time economy uses that contribute to the vitality of the Borough's designated town centres subject to the following considerations:</p> <p>They are part of a strategy to create cultural quarters in a town centre or support the creation of a balanced provision of evening/night-time uses;</p> <p>The design of the development particularly focuses on public safety, crime prevention and the reduction of anti-social behaviour;</p> <p>There will be no significant individual or cumulative adverse effect on the surrounding residential amenity due to noise, traffic, parking, general disturbance or problems of disorder and nuisance;</p> <p>Arrangements for mitigating pollution including ventilation equipment, refuse disposal, grease traps and noise insulation is provided in a way that minimises visual and environmental impact;</p> <p>Access requirements for people of all ages and abilities are provided;</p> <p>Adequate levels of parking and public transit will be available during the hours of operation;</p> <p>The day-time use does not detract from the character and amenity of the surrounding shops and services (i.e. providing a blank frontage due to closure during the day rather than maintaining an active street frontage).</p>	No HRA implications
DM29 – Built Heritage Assets	SO15	<p>Development proposals which may affect built heritage assets in Waltham Forest (both designated and undesignated) or their setting should demonstrate how these assets will be protected, conserved and where appropriate enhanced.</p> <p><b>Conservation Areas</b></p> <p>In order to preserve or enhance the character or appearance of the conservation areas (as shown on the proposals map), the Council will:</p>	No HRA implications

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p>i) refuse permission for any development in those areas which does not preserve or enhance the character or appearance of the area;</p> <p>ii) refuse permission for the demolition of any building in a conservation area where it is clear that this would have an adverse effect on the character or appearance of the area. In cases where demolition is to be followed by redevelopment, consent to demolish will be given only when acceptable plans for redevelopment have been agreed;</p> <p>iii) use Article 4 directions to restrict permitted development rights in conservation areas;</p> <p>iv) resist the loss of any tree which contributes to the character of the conservation area;</p> <p>v) seek designation, where appropriate, of conservation areas as areas of special control for advertisements.</p>	
		<p><b>Statutorily Listed Buildings</b></p> <p>The Council will not agree to proposals involving the demolition of any building which is on the statutory list of buildings of special architectural and/or historic interest. The Council will not permit uses, alterations or extensions that would be detrimental to the significance of the assets including fabric, appearance, historic interest or setting of these buildings: and it will encourage proposals which seek their rehabilitation, maintenance repair and enhancement; The design of alterations or extensions to a listed building must be sympathetic in all respects to the significance of the asset including its period and style of the original building; Wherever possible consideration should be given to improving access for people with disabilities to all listed buildings open to the public or where people are employed.</p>	
		<p><b>Locally Listed Buildings</b></p> <p>The Council will seek to retain buildings included on its local list of buildings of architectural/historic interest and encourage their sympathetic maintenance and enhancement. Alterations or extensions to locally listed buildings will be expected to achieve a high standard of design.</p>	
		<p><b>Buildings of Importance to the Character of Walthamstow Town Centre</b></p>	

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p>In considering development proposals for properties of particular importance to the character of Walthamstow Town Centre, the Council will have regard to ensuring that the essential character of the buildings is maintained and enhanced by the proposals. Proposals which would involve the demolition of, or drastic alterations to, these properties will be resisted.</p> <p><b>Archaeological Heritage</b></p> <p>The Council will ensure the preservation, protection and where possible the enhancement of the archaeological heritage of the borough. Where proposals affect heritage assets of archaeological interest, preference will be given to preservation in situ. However where loss of the asset is justified in accordance with PPS5, the remains should be appropriately recorded, assessed, analysed, disseminated and the archive deposited.</p> <p><b>Improvement Schemes</b></p> <p>The Council will work with owners/partners to restore buildings, spaces and areas. Where significant harm to a heritage asset is justified in accordance with PPS5, a programme of work will be secured with mitigation measures through planning conditions or a Section 106 agreement.</p>	<p>No direct HRA considerations, though provides support to resource efficiency measures contained within other policies.</p>
<p>DM30 – Design Principles, Standards and Local Distinctiveness</p>	<p>SO15 CS15</p>	<p>The Council will expect a high standard of urban and architectural design for all new development. Proposals should:</p> <ul style="list-style-type: none"> <li>i. be supported by a clear and robust design rationale based on a sound understanding and analysis of local context and character;</li> <li>ii. reinforce and/or enhance local character and distinctiveness, taking account of patterns of development, urban form, building typology, detailing and materials, trees and landscaping etc and other features of local significance;</li> <li>iii. provide appropriate physical, legible and safe connections with surrounding streets, paths and neighbouring development;</li> <li>iv. respond to their context in terms of scale, height, and massing;</li> <li>v. provide a coherent layout and block structure with active street frontages fronting the public realm;</li> <li>vi. have a clear distinction between public and private space;</li> <li>vii. be visually attractive, with architecture that</li> </ul>	

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p>respects its context without unduly restricting style;</p> <p>viii. include high quality materials which are attractive and durable;</p> <p>ix. take a design-led, integrated approach to car parking which is appropriately sited and supports the street scene;</p> <p>x. where relevant, provide an appropriate level of well-designed, located and usable amenity space;</p> <p>xi. Incorporate high quality landscaping and tree planting where appropriate;</p> <p>xii. maximise energy efficiency and usage of renewable resources, in accordance other policies on climate change;</p> <p>xiii. for residential schemes, seek to address the CABE/HBF “Building for Life” criteria.</p> <p>xiv. where appropriate, exploit the potential for mixed-use where this can add benefit to wider sustainability objectives.</p> <p>New development proposals will be expected to provide appropriate facilities for the benefit of occupiers and visitors.</p> <p>The Council will not grant consent for advertisements which are detrimental to the appearance of the building which it is on, detrimental to the visual amenity of the surrounding area and a hazard to public safety.</p> <p>Within areas of special control of advertisements (to be identified), the Council will seek to restrict the number, size and illumination of new advertisements and reduce the amount of outdoor advertising where replacement signing is proposed.</p>	
DM31 – Inclusive Environment and Built Environment	SO15	<p>The Council will seek to ensure that inclusive design principles are applied at the very outset of any development. Applications for new development (including the alteration, extension or change of use of buildings and land) to which the public have access should where practical and reasonable, be designed so that everyone, including disabled people, can conveniently reach and enter any buildings or use any open air facilities. The Council will seek to secure best practice by commending inclusive design guidelines to developers.</p>	No HRA implications
DM32 – Tall Buildings	SO15	<p>Tall buildings will not normally be appropriate in Waltham Forest. However, subject to detailed analysis of their impact on local context, tall buildings may be acceptable in</p>	<p>Tall buildings could have impacts through visual disturbance to birds for which Lee Valley SPA and Ramsar is designated. However,</p>

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p>limited locations e.g. in town centres such as Walthamstow or key regeneration sites and growth areas. Where acceptable, proposals will need to consider all of the following factors:</p> <ul style="list-style-type: none"> <li>the quality of design and architecture;</li> <li>the quality of construction and materials;</li> <li>detail and impact at ground floor level;</li> <li>impact on privacy and amenity with adjacent properties;</li> <li>accessibility to transport interchanges and nearby facilities such as shops, community facilities and other services etc;</li> <li>impact on local and strategic views;</li> <li>impact on micro climate for example wind, sun and reflection;</li> <li>impact on the historic context;</li> <li>relationship to topography and surrounding land form; and</li> <li>the management regime, particularly in relation to residential mix.</li> </ul> <p>Developers should take into account the CABE/ English Heritage Guidance on Tall Buildings (July 2007), particularly in relation to the impact on their surroundings and local historic context.</p>	<p>the stated need for specific guidance within AAPs for such developments within the Northern Olympic Fringe means that this issue would be considered at the individual project level.</p>
DM33 – Managing SO15 Impact of Development on Occupiers and Neighbours		<p>When considering the impact of new development on neighbouring amenity, the Council will have regard to the following:</p> <ul style="list-style-type: none"> <li>(a) privacy/overlooking;</li> <li>(b) outlook;</li> <li>(c) access to daylight and sunlight;</li> <li>(d) noise and disturbance;</li> <li>(e) the resulting physical relationship with other properties;</li> <li>(f) light pollution and other forms of pollution;</li> <li>(g) arrangements for the storage, collection and disposal of refuse; and</li> <li>(h) safety and security;</li> </ul> <p>Development will only be acceptable where it would not cause an unacceptable loss of amenity to adjoining or future occupiers of the development.</p>	<p>Positive in that it seeks to minimise pollution-generating development.</p>
DM34 – Improving SO16 Community Safety CS16		<p>The Council will aim to improve community safety and cohesion in the following ways:</p> <p>Design</p> <p>New development proposals should:</p> <ul style="list-style-type: none"> <li>- be sited and designed to maximising opportunities for natural surveillance;</li> </ul>	<p>No HRA implications</p>

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p>- demonstrate a clear distinction between areas of public and private space;            - create an attractive and welcoming physical environment;            - provide for management and maintenance of communal areas;            - incorporate legible routes and spaces.            In addition, harder security measures such as CCTV will be supported where a clear need for them is identified.            Development proposals likely to result in crowded places will also need to demonstrate that counter terrorism design measures have been explored and where necessary incorporated.</p> <p>Use            Commercial centres should provide a mix of uses that cater for all sections of the community. Concentrations of uses that are likely to give rise to anti-social behaviour should be resisted.            The provision of diversionary activities for young people, such as sporting, recreational, cultural and community based activities will be supported in accessible locations.</p> <p>Public Realm            Enabling development of a network of safe walking and cycling routes, particularly in the key growth areas of Blackhorse Lane, The Northern Olympic Fringe, Walthamstow Central and Wood Street, to link homes with town centres, employment areas, recreation/ leisure facilities and open space.</p>	
DM35 - Water	SO5 CS5 CS6	<p><b>Water Infrastructure</b></p> <p>Development proposals should protect existing water and sewerage infrastructure. Where development increases the demand for off-site service infrastructure, it must be demonstrated that sufficient capacity already exists, or that extra capacity or financial contributions will be provided.            All developments of 10 or more dwellings or 1000sqm of floorspace will be expected to establish separate foul sewer and surface water drains.            The development or expansion of water supply or waste water facilities will normally be permitted, provided that the need for such facilities outweighs any adverse land use or environmental impact and that any such adverse impact is minimised.</p>	<p>Measures that seek to ensure sustainable use of resources are likely to lead to improved availability of water resources—this will potentially benefit Lee Valley SPA/Ramsar.</p> <p>Avoidance of impacts of development on the water environment (waterways) provides a protective mechanism for Lee Valley SPA/Ramsar. Such impacts would not necessarily be limited to water resources or pollution, but could include recreational impacts or</p>

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
		<p><b>Water Efficiency</b></p> <p>Development proposals should: implement water efficiency measures to meet the draft replacement London Plan target for daily usage in residential development; meet the water targets set out in DM11; and incorporate measures for surface and grey water capture and re-use; and, provide justification where this is not practicable or feasible.</p> <p><b>Managing Flood Risk</b></p> <p>Flood risk should be managed by: ensuring that where development proposals affect an area identified in the SFRA Levels 1 and 2 or in the SWMP(38) as at risk from surface or groundwater water flooding, a site specific flood risk assessment or drainage strategy is submitted in support of planning applications, regardless of the minimum requirements set out in PPS25 (39); implementing Sustainable Urban Drainage Systems (SuDS) where possible; and, where SuDS cannot be implemented, justification must be provided outlining the reasons and demonstrating alternative sustainable approaches to the management of surface water. The Council will expect this to be shown in the Design and Access Statement; ensuring that all drainage systems, including SuDS take into account the impact on ecology and applications should be accompanied by a management plan; using and retaining permeable materials in large areas of hardstanding, unless strong justification suggests otherwise; undertaking land swaps in suitable locations to relocate more vulnerable uses and enable the floodplain to be used as storage; and where necessary, providing new or upgraded infrastructure and/or financial contributions towards measures to reduce and mitigate against flood risk, which may include protecting existing flood defences.</p> <p><b>Waterways</b></p> <p>Development adjacent to waterways should demonstrate that: there will be no adverse impacts on the water environment, species or habitats and that enhancement measures have been incorporated wherever possible.</p>	<p>urbanisation/proximity effects, and this, along with the need to balance conservation aims with improved access, is recognised within the supporting text.</p>

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
DM36 - Biodiversity	SO6 CS6	<p>Land drainage consent is obtained from the Environment Agency for works in, under, over and adjacent to watercourses. Buffer zones are established and left free of any permanent structures. Where it is not possible to do so, justification should be provided.</p> <p>Designs are of high quality and integrate successfully in terms of use, appearance, scale and physical impact. Where large scale or taller buildings are proposed, they should respond to their context in relation to public or private open spaces, the waterspace, ecology and other townscape elements.</p> <p>Development proposals will not normally be granted planning permission where they pose adverse direct or indirect effects on a Site of Importance for Nature Conservation (SINC) or to protected or priority species. However, in an exceptional situation whereby a development creates an adverse impact on a Site of Importance for Nature Conservation or important species is permitted, suitable planning obligations and/or adopted tariff contribution and/or conditions will be necessary to compensate for such impacts. Where there are existing biodiversity resources on-site or in the vicinity of a development site, the developer must submit an assessment with the planning application to outline the value of this resource, along with measures to retain, restore and enhance where appropriate.</p> <p>Where appropriate, development proposals must provide measures to support species and habitats through the use of landscaping on or adjacent to buildings.</p> <p>Where vacant or derelict land is awaiting redevelopment and has some value for nature conservation, the Council will expect it to be protected on a temporary basis.</p> <p>Development proposals will be expected to improve sensitive public access to areas of nature conservation, especially in areas of deficiency.</p> <p>Development proposals should protect, enhance and extend the network of Green Corridors where possible.</p> <p>An arboricultural report must be submitted where a development proposal will impact on trees. The loss or damage of trees should be avoided where possible; and where this is cannot be achieved, mitigation and compensation measures should be outlined</p>	<p>The policy provides support for extension of green infrastructure which could benefit European sites when combined with enhanced public access, by deflecting users from sensitive European sites. The need to balance protection and access is recognised in policies DM23 and DM35.</p>

Policy Number/Name	Links to Strategic Objectives and Core Strategy Policies	Policy Summary	Screening Decision
DM37 – Working With Partners and Infrastructure	SO1	<p>and implemented.</p> <p><b>Planning Obligations</b></p> <p>Where necessary, the Council will seek a planning obligation in order to facilitate development. The Council will ensure that all new developments within the Borough are served by adequate physical and social infrastructure and that such development is implemented with the provision of infrastructure and the mitigation of any environmental impacts.</p> <p>The Council's Planning Obligations Supplementary Planning Document (SPD) (2008) sets out the Council's expectations for developers to make S106 contributions.</p> <p>Phasing and pooling of contributions may be necessary. The Council may pool contributions relating to significant infrastructure i.e. transport, education and health. The Council may choose to achieve this through adopting a tariff schedule in the future and / or through the use of planning obligations.</p> <p>Any pooling of contributions, including the calculation of planning contribution requirements or a tariff will be determined through either the Council Planning Obligations Supplementary Planning Document on planning contributions or through a tariff charging schedule.</p> <p>The Council will negotiate planning obligations in relation to proposed development. These may be delivered in kind or through financial contributions.</p> <p>The Council will take into account the contribution that land use swaps, housing credits and off-site contributions can make, through mixed use development, especially to sustain strategically important clusters of commercial activities.</p> <p>The S106 contributions includes: Housing (affordable) Education Employment, Training and Enterprise Regeneration Transport and Highway Environment and Outdoor Recreation Health Community and Cultural Facilities Air Quality and Recycling Climate Change and Sustainability</p>	<p>Partnership working is a positive approach in terms of providing mechanisms for delivery of assets such as green infrastructure, sustainable transport, and resources such as water and energy on a sustainable basis.</p> <p>It will be important that such partnership working is committed to timely delivery of infrastructure and that this is appropriate to avoid or mitigate any pressures on European sites. This advice will be incorporated within CS policies, and may also be referenced with respect to transport, within policy DM14.</p> <p>Partnership working will be important in implementation of monitoring approaches also, particularly with respect to air quality and Epping Forest SAC, and this is referenced within the HRA of the Core Strategy for incorporation into future iterations of the CS.</p>

## 5 Overall Conclusions

5.1.1 As a result of this HRA it has been possible to conclude that no pathways of impact leading to adverse effects will occur on:

- Epping Forest SAC; and
- Lee Valley SPA/Ramsar

## Appendix 1: European Designated Sites

### Epping Forest SAC

#### Introduction

Epping Forest SAC covers over 1,600 ha of Essex and the London Borough of Waltham Forest, with 70% of the site consisting of broadleaved deciduous woodland. Epping Forest is one of only a few remaining large-scale examples of ancient wood-pasture in lowland Britain and has retained habitats of high nature conservation value including ancient semi-natural woodland, old grassland plains and scattered wetland. The semi-natural woodland is particularly extensive, forming one of the largest coherent blocks in the country. Most is characterised by groves of over-mature pollards and these exemplify all three of the main wood-pasture types found in Britain: beech-oak, hornbeam-oak and mixed oak. The Forest plains are also a major feature and contain a variety of unimproved acid grasslands, which have become uncommon elsewhere in Essex and the London area. In addition, Epping Forest supports a nationally outstanding assemblage of invertebrates, a major amphibian interest and an exceptional breeding bird community.

#### Features of European Interest<sup>39</sup>

The site is designated as a SAC for its:

- Beech forests on acid soils; an example of such habitat toward the north-east of its UK range, containing a notable selection of bryophytes, fungi and dead-wood invertebrates;
- Stag beetle (*Lucanus cervus*), for which this is one of only four known outstanding localities in the UK;
- Dry heaths; and
- Wet heathland with cross-leaved heath.

#### Historic Trends and Current Conditions

Deteriorating air quality and under-grazing are the two key pressures that currently affect the site. While recreational pressure is a considerable impact in some areas, these are localised; however, funding of management on the SAC is governed largely by donation and contributions from the Corporation of London and it is likely that the ability to adequately manage recreation on the SAC will come under increasing pressure as the population of northeast London, Epping Forest district and East Hertfordshire district increases.

Within the London Borough of Waltham Forest itself none of the SSSI management units that underpin the SAC are in favourable condition – some are considered to be recovering from unfavourable status, but others are showing no improvement or are declining. In all cases, poor

---

<sup>39</sup> Features of European Interest are the features for which a European sites is selected. They include habitats listed on Annex 1 of the Habitats Directive, species listed on Annex II of the EC Habitats Directive and populations of bird species for which a site is designated under the EC Birds Directive.

air quality is cited in the most recent condition assessment process (2010) as a primary factor for this condition. There are localised concerns over recreational pressure, but the condition assessment reports state that the site would be able to withstand this in a more robust manner were it not for the stress imposed by atmospheric pollutants.

## Key environmental conditions

The following key environmental conditions have been identified for the maintenance of the interest features of Epping Forest SAC:

- Controlled recreational activity;
- Good air quality;
- Maintenance of grazing regimes;
- Unpolluted water;
- Absence of nutrient enrichment;
- Absence of non-native species.

## Lee Valley SPA and Ramsar

### Introduction

The Lee Valley comprises a series of embanked water supply reservoirs, sewage treatment lagoons and former gravel pits along approximately 24 km of the valley. These waterbodies support internationally important numbers of wintering gadwall and shoveler, while the reedbeds support a small but internationally important population of bittern.

The Lee Valley SPA/Ramsar consists of four Sites of Special Scientific Interest, of which Turnford and Cheshunt Pits SSSI, Rye Meads SSSI and Amwell Quarry SSSI all lie outside of Waltham Forest borough on the Hertfordshire/Essex border. Walthamstow Reservoirs SSSI lies within London Borough of Waltham Forest. The Special Protection Area is managed by the Lee Valley Regional Park Authority and by Thames Water.

The Walthamstow Reservoirs contain one of the country's major heronries and a particularly large concentration of breeding wildfowl. They are also an important gathering area for moulting tufted duck and in winter attract nationally significant populations of wildfowl and other wetland birds. They were mainly constructed in the latter half of the nineteenth century and comprise ten relatively small, shallow, water storage basins. Several of the reservoirs are fringed by sloping earth banks and these, together with the presence of wooded islands, form distinctive habitat features. The reservoirs serve an active part in Thames Water's strategic water supply infrastructure.

During the winter months the reservoirs are a favoured area for a variety of wetland birds and in particular, large numbers of wildfowl. The populations of shoveler and tufted duck consistently reach levels of national significance, while great crested grebe, pochard and coot also occur in important numbers. The shores of the reservoirs and the banks of the Coppermill Stream are of

added interest for fringes of fenland vegetation containing species that are uncommon in Greater London.

## Features of European interest

Lee Valley is designated as a SPA due to its over-wintering populations of:

- Bittern *Botaurus stellaris*, 6 individuals representing at least 6.0% of the wintering population in Great Britain (5 year peak mean, 1992/3-1995/6)
- Gadwall *Anas strepera*, 515 individuals representing at least 1.7% of the wintering Northwestern Europe population (5 year peak mean 1991/2 - 1995/6)
- Shoveler *Anas clypeata*, 748 individuals representing at least 1.9% of the wintering Northwestern/Central Europe population (5 year peak mean 1991/2 - 1995/6)

The birds that winter on many Special Protection Areas/Ramsar sites (the Lee Valley being no exception) are not confined to the boundaries of the SPA, but in fact utilise areas of 'supporting habitat' located outside the boundaries and sometimes many kilometres distant..

Lee Valley qualifies as a Ramsar site under two criteria:

- **Criterion 2: A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.** The site supports the nationally scarce plant species whorled water-milfoil *Myriophyllum verticillatum* and the rare or vulnerable invertebrate *Micronecta minutissima* (a water-boatman).
- **Criterion 6: A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.**
  - Species with peak counts in spring/autumn:
    - Shoveler *Anas clypeata*, 287 individuals, representing an average of 1.9% of the GB population (5 year peak mean 1998/9-2002/3)
  - Species with peak counts in winter:
    - Gadwall *Anas strepera*, 445 individuals, representing an average of 2.6% of the GB population (5 year peak mean 1998/9- 2002/3)

## Historic Trends and Current Conditions

Although parts of the SPA currently experience high levels of visitor pressure, it is not currently deemed to be at levels that threaten the SPA/ Ramsar site<sup>40</sup>.

During the most recent condition assessment of the SSSI units that underpin the SAC (2008), the Walthamstow reservoirs were listed as recovering from unfavourable condition. The assessment noted that "*There has been a slight fall in the number of breeding Grey Heron and Tufted Duck. Wintering Cormorant, Shoveler and Tufted Duck and breeding Pochard remain favourable. The site is in good condition and the fall in numbers is no reflection of site management.*"

---

<sup>40</sup> JNCC (2000) Information Sheet on Ramsar Wetlands – Lee Valley <http://www.jncc.gov.uk/pdf/RIS/UK11034.pdf>

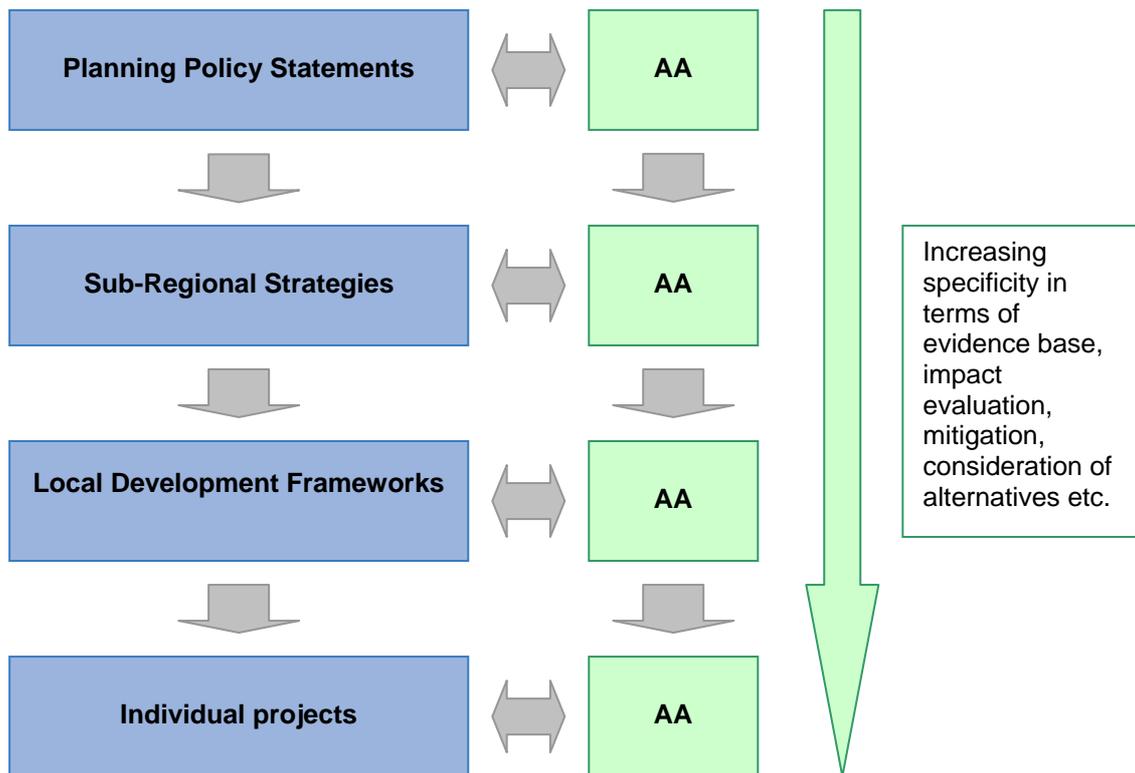
## Key environmental conditions

The following key environmental conditions were identified for this site:

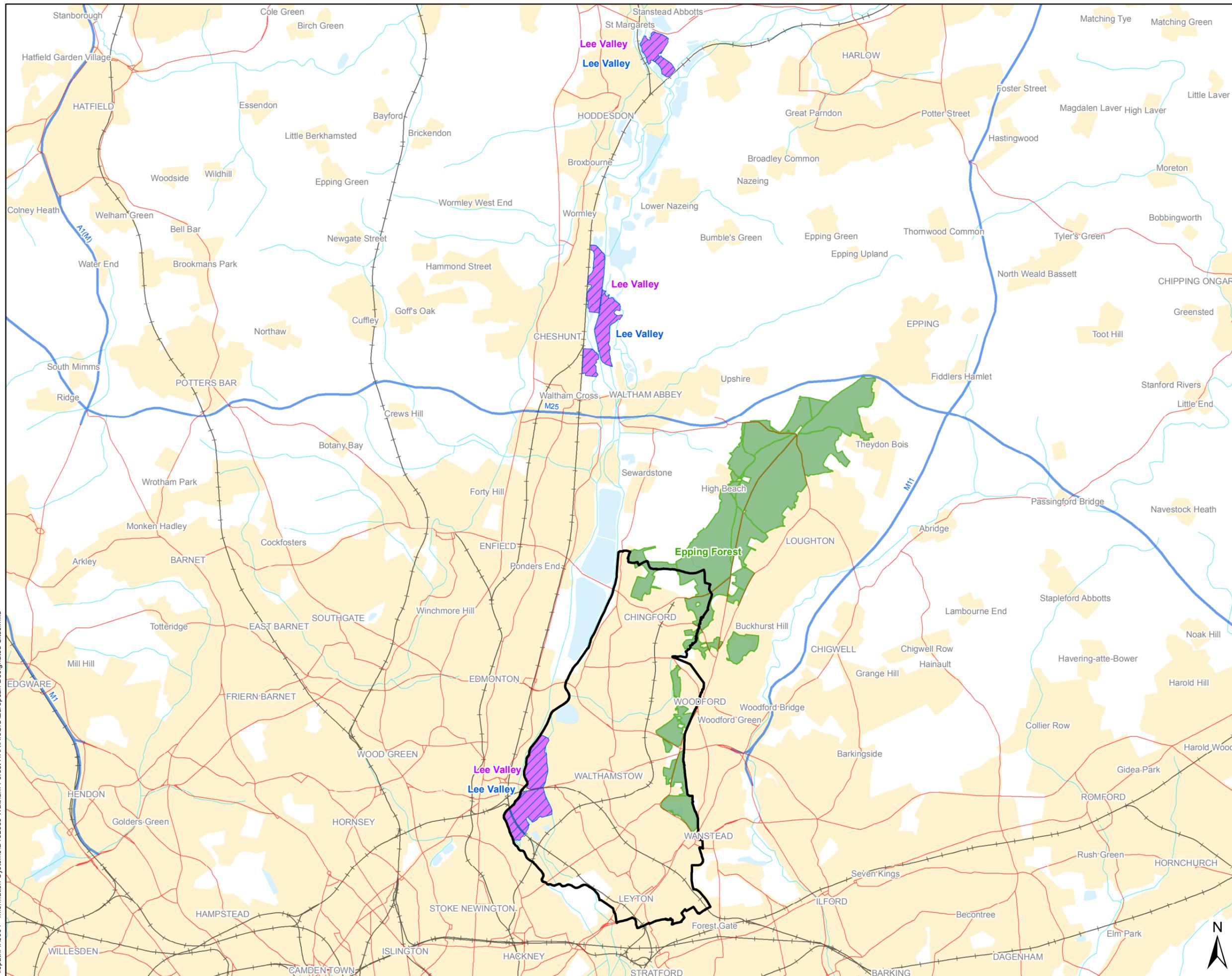
- Minimal disturbance
- Maintenance of grazing / mowing regimes
- Consistent freshwater flows and volumes
- Consistent water quality
- Good air quality
- Unpolluted water
- Absence of nutrient enrichment
- Absence of non-native species
- The maintenance of adequate supporting habitat outside the boundaries of the European site

It is understood that most of the off-site supporting habitat for gadwall and shoveler relates to nearby water bodies (i.e. within approximately 2 km). It is understood that bittern does not significantly utilise habitat outside the boundaries of the SPA/Ramsar site.

## Appendix 2: 'Tiering' in Habitat Regulations Assessment



Date: 3rd November 2010  
 Filepath: I:\5004 - Information Systems\132386 Waltham Forest HRA\GIS\IEuropean Designated Sites.mxd



**NOTES**

- London Borough of Waltham Forest Boundary
- Ramsar
- Special Protection Area (SPA)
- Special Area of Conservation (SAC)
- A Road
- Motorway
- Railway
- River

Copyright  
 Contains Ordnance Survey Data  
 © Crown Copyright and database right 2010  
 © Natural England material is reproduced with the permission of Natural England 2010  
 Boundary source - Waltham Forest Borough Council North olympic fringe/AAP map.

Revision Details	By	Date	Suffix
	Check		

Drawing Status: **DRAFT**

Job Title:  
**WALTHAM FOREST  
 DMP HRA**

Drawing Title:  
**EUROPEAN  
 DESIGNATED  
 SITES**

Scale at A3: 1:100,000

Drawn	AH	Approved	GD
Stage 1 check	Stage 2 check	Originated	Date

THIS DOCUMENT HAS BEEN PREPARED IN ACCORDANCE WITH THE SCOPE OF SCOTT WILSON'S APPOINTMENT WITH ITS CLIENT AND IS SUBJECT TO THE TERMS OF THAT APPOINTMENT. SCOTT WILSON ACCEPTS NO LIABILITY FOR ANY USE OF THIS DOCUMENT OTHER THAN BY ITS CLIENT AND ONLY FOR THE PURPOSES FOR WHICH IT WAS PREPARED AND PROVIDED.  
 © SCOTT WILSON LTD 2010

Scott Wilson Ltd  
 Scott House  
 Alençon Link, Basingstoke  
 Hampshire, RG21 7FP  
 Telephone (01256) 310200  
 Fax (01256) 310201  
 www.scottwilson.com

Drawing Number: **FIGURE 1**

